

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 19, 2006, 11:56:31 ; Search time 159.884 Seconds
(without alignments)
1852.232 Million cell updates/sec

Title: US-10-775-180-447

Perfect score: 3568
Sequence: 1 NMIFIFLPLSLFVGLGHT.....TCFABEGKTVAAAGQALGL 674

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :

A_Geneseq_21.*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	3568	100.0	674	7	ADP16193	Adf16193 Human alb
2	3568	100.0	674	7	ADH21650	Adh21650 Human alb
3	3568	100.0	674	9	ADM45202	Adw45202 K. lactis
4	3568	100.0	915	9	ADM45204	Adw45204 K. lactis
5	3444.5	96.5	669	7	ADP16144	Adf16144 Human alb
6	3444.5	96.5	669	7	ADH21622	Adh21622 Human alb
7	3444.5	96.5	730	7	ADP16525	Adf16525 Human alb
8	3444.5	96.5	730	7	ADH21813	Adh21813 Human alb
9	3438.5	96.4	669	7	ADP16150	Adf16150 Human alb
10	3438.5	96.4	669	7	ADH21628	Adh21628 Human alb
11	3438.5	96.4	730	7	ADP16527	Adf16527 Human alb
12	3438.5	96.4	730	7	ADH21815	Adh21815 Human alb
13	3432.5	96.2	669	7	ADP16149	Adf16149 Human alb
14	3432.5	96.2	669	7	ADP16145	Adf16145 Human alb
15	3432.5	96.2	669	7	ADP16145	Adf16145 Human alb
16	3432.5	96.2	669	7	ADP16146	Adf16146 Human alb
17	3432.5	96.2	669	7	ADH21624	Adh21624 Human alb
18	3432.5	96.2	669	7	ADH21626	Adh21626 Human alb
19	3432.5	96.2	669	7	ADH21623	Adh21623 Human alb
20	3432.5	96.2	669	7	ADH21627	Adh21627 Human alb
21	3427	96.0	668	7	ADP16524	Adf16524 Human alb
22	3427	96.0	668	7	ADH21812	Adh21812 Human alb
23	3422	95.9	662	7	ADP16526	Adf16526 Human alb
24	3422	95.9	662	7	ADH21814	Adh21814 Human alb

25	3421	95.9	668	7	ADP16528	Adf16528 Human alb
26	3421	95.9	668	7	ADH21816	Adh21816 Human alb
27	3420.5	95.9	664	7	ADP16510	Adf16510 Human alb
28	3420.5	95.9	664	7	ADH21801	Adh21801 Human alb
29	3418.5	95.8	663	7	ADP16512	Adf16512 Human alb
30	3418.5	95.8	663	7	ADH21803	Adh21803 Human alb
31	3416	95.7	662	7	ADP16529	Adf16529 Human alb
32	3416	95.7	662	7	ADH21817	Adh21817 Human alb
33	3414.5	95.7	664	7	ADP16511	Adf16511 Human alb
34	3414.5	95.7	664	7	ADH21802	Adh21802 Human alb
35	3413.5	95.7	667	7	ADP16147	Adf16147 Human alb
36	3413.5	95.7	667	7	ADH21625	Adh21625 Human alb
37	3413.5	95.6	663	7	ADP16513	Adf16513 Human alb
38	3412.5	95.6	663	7	ADH21804	Adh21804 Human alb
39	3401	95.3	658	9	ADM45206	Adw45206 K. lactis
40	3395	95.2	654	9	ADM45215	Adw45215 K. lactis
41	3395	95.2	656	9	ADM45221	Adw45221 K. lactis
42	3393	95.1	650	9	ADM45205	Adw45205 K. lactis
43	3392.5	95.1	655	9	ADM45216	Adw45216 K. lactis
44	3392.5	95.1	657	9	ADM45212	Adw45212 K. lactis
45	3392.5	95.1	657	9	ADM45299	Adw45299 Human fuv

ALIGNMENTS

RESULT 1
ADP16193
ID ADP16193 standard; protein; 674 AA.
XX
XX
AC ADP16193;
XX
XX
DT 12-FEB-2004 (first entry)
XX
DE Human albumin therapeutic fusion protein SegID1280.
XX
XX
KW albumin fusion protein; albumin activity; human serum albumin;
KW serum osmotic pressure; shelf-life; stability; antidiabetic;
KW gene therapy; diabetes mellitus; human.
XX
XX
OS Chimeric.
OS Homo sapiens.
PN WO2003060071-A2.
XX
XX
PD 24-JUL-2003.
XX
XX
PF 23-DEC-2002; 2002WO-US040891.1
XX
XX
PR 21-DEC-2001; 2001US-0341811P.
PR 24-JAN-2002; 2002US-0350358P.
PR 28-JAN-2002; 2002US-0351360P.
PR 26-FEB-2002; 2002US-0359370P.
PR 28-FEB-2002; 2002US-0360000P.
PR 27-MAR-2002; 2002US-0367500P.
PR 08-APR-2002; 2002US-0370227P.
PR 10-MAY-2002; 2002US-0378950P.
PR 24-MAY-2002; 2002US-0382617P.
PR 28-MAY-2002; 2002US-0383123P.
PR 05-JUN-2002; 2002US-0385708P.
PR 10-JUL-2002; 2002US-0394625P.
PR 24-JUL-2002; 2002US-0402008P.
PR 09-AUG-2002; 2002US-0402131P.
PR 13-AUG-2002; 2002US-0402708P.
PR 18-SEP-2002; 2002US-0411355P.
PR 02-OCT-2002; 2002US-0411426P.
PR 11-OCT-2002; 2002US-0414984P.
PR 23-OCT-2002; 2002US-0420246P.
PR 05-NOV-2002; 2002US-0423623P.
XX
XX
XX (HUMA-) HUMAN GENOME SCI INC.
PA (DELZ) DELTA BIOTECHNOLOGY LTD.

PA (PRIN-) PRINCIPIA PHARM CORP.
XX Balance DJ, Turner AJ, Rosen CA, Haseltine WA;
XX WPI; 2003-598517/56.
DR
PT New albumin fusion protein, useful for preparing a composition for
PT treating diabetes mellitus.
XX
XX Example 4; SEQ ID NO 1280; 24pp; English.
XX
XX This invention relates to a novel albumin fusion protein having albumin
CC or biological activity. Human serum albumin is responsible for a
CC significant proportion of the oncotic pressure of serum and also
CC functions as a carrier of endogenous and exogenous ligands. The fusion of
CC albumin to a therapeutic protein may increase shelf-life and stability of
CC the therapeutic protein. The albumin fusion protein of the invention may
CC allow production of compositions with antidiabetic activity whilst the
CC nucleotide sequence which encodes it may be useful for gene therapy. The
CC albumin fusion protein is useful for preparing a composition for treating
CC diabetes mellitus. The present sequence is the amino acid sequence of a
CC novel full-length human albumin therapeutic fusion protein of the
CC invention. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/publishedpct_sequences
XX
SQ Sequence 674 AA:
Query Match 100.0%; Score 3568; DB 7; Length 674;
Best Local Similarity 100.0%; Pred. No. 3.8e-293;
Matches 674; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MNIFYFLPLSLFVQGLBHTHRGSLDKHGEFTSDVSYLGGAAKEFIAMLVKGRH 60
DB 1 MNIFYFLPLSLFVQGLBHTHRGSLDKHGEFTSDVSYLGGAAKEFIAMLVKGRH 60
QY 61 GEGFTSDVSYLGGAAKEFIAMLVKGRHSEVAHRFKDLGEEFPALVLAFAQYL 120
DB 61 GEGFTSDVSYLGGAAKEFIAMLVKGRHSEVAHRFKDLGEEFPALVLAFAQYL 120
QY 121 QCCPEFDHYKLVEVTEPAKTCVADBSAENCDSKSLTLEGDKICTAATRETYGEMADCC 180
DB 121 QCCPEFDHYKLVEVTEPAKTCVADBSAENCDSKSLTLEGDKICTAATRETYGEMADCC 180
QY 181 AKQEPERNCEFLQHKDNPFLPLVAPVDVWCTAFHDEBEPLKCYLEIARHRYFYA 240
DB 181 AKQEPERNCEFLQHKDNPFLPLVAPVDVWCTAFHDEBEPLKCYLEIARHRYFYA 240
QY 241 PELLPFAKRYKAAFTCCQADAAACILPLDELBDGKASSAKORLKCASLQKGERAF 300
DB 241 PELLPFAKRYKAAFTCCQADAAACILPLDELBDGKASSAKORLKCASLQKGERAF 300
QY 301 KAAVAARLSQRPFAKPAEYVKLVTDLTQVHTCCGGDLLECCADDPADLAKYICENQDSI 360
DB 301 KAAVAARLSQRPFAKPAEYVKLVTDLTQVHTCCGGDLLECCADDPADLAKYICENQDSI 360
QY 361 SSKLKSCCEKPLEKSHCTAEVNDENPADLPISADPYESKDYCVGNVAEAKDVPFGMFL 420
DB 361 SSKLKSCCEKPLEKSHCTAEVNDENPADLPISADPYESKDYCVGNVAEAKDVPFGMFL 420
QY 421 YEYARHPDYSVVLRLAKTYETTLKCCCAADPHECYAKVDEKFLVBEBPONLIKON 480
DB 421 YEYARHPDYSVVLRLAKTYETTLKCCCAADPHECYAKVDEKFLVBEBPONLIKON 480
QY 481 CELFEOLGEYKFNALLVRYTKVPOVSTPTLVESRNIGKVSCKCKPEARMCAAD 540
DB 481 CELFEOLGEYKFNALLVRYTKVPOVSTPTLVESRNIGKVSCKCKPEARMCAAD 540
QY 541 YLSVAVNOLCVLHEKTPVSDRVTKCCESLVNRRPCEASLEVDVETVVPKEPNAETFFPA 600
DB 541 YLSVAVNOLCVLHEKTPVSDRVTKCCESLVNRRPCEASLEVDVETVVPKEPNAETFFPA 600
QY 601 DICTLSEKERQIKQOTALVELVGHKPKATKEQLKAVMDFAAFVEKCCKADKETCFABE 660

DB 601 DICTLSEKERQIKQOTALVELVGHKPKATKEQLKAVMDFAAFVEKCCKADKETCFABE 660
QY 661 GKGLVAAQSAAALGL 674
DB 661 GKGLVAAQSAAALGL 674
RESULT 2
ADH21650
ID ADH21650 standard; protein; 674 AA.
XX
XX ADH21650;
XX
XX 11-MAR-2004 (first entry)
XX
XX Human albumin/GLP-1(7-36(A8G))x2 fusion protein, SEQ ID NO:447.
XX
XX Fusion protein; human serum albumin; HSA; therapeutic protein;
KW shelf-life; in vitro biological activity; in vivo biological activity;
KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiatic;
KW anorectic; ophthalmological; gene therapy.
XX
XX Synthetic.
OS Chimeric.
OS Homo sapiens.
XX
XX WO2003059934-A2.
XX
XX 24-JUL-2003.
XX
XX 23-DEC-2002; 2002WO-US040892.
XX
XX 21-DEC-2001; 2001US-0341811P.
XX
XX 24-JAN-2002; 2002US-0350358P.
XX
XX 26-FEB-2002; 2002US-0359370P.
XX
XX 28-FEB-2002; 2002US-0360000P.
XX
XX 27-MAR-2002; 2002US-0367500P.
XX
XX 08-APR-2002; 2002US-0370227P.
XX
XX 10-MAY-2002; 2002US-0378950P.
XX
XX 24-JUL-2002; 2002US-0398008P.
XX
XX 09-AUG-2002; 2002US-0402131P.
XX
XX 13-AUG-2002; 2002US-0402708P.
XX
XX 18-SEP-2002; 2002US-0411355P.
XX
XX 02-OCT-2002; 2002US-0411984P.
XX
XX 11-OCT-2002; 2002US-0417611P.
XX
XX 23-OCT-2002; 2002US-0420246P.
XX
XX 05-NOV-2002; 2002US-0423623P.
XX
XX (HUMA-) HUMAN GENOME SCI INC.
XX
XX Rosen CA, Haseltine WA;
XX
XX WPI; 2003-598501/56.
XX
XX New albumin fusion protein, useful for preparing a composition for
PT treating diabetes mellitus.
XX
XX Disclosure; SEQ ID NO 447; 1086pp; English.
XX
XX The invention relates to fusion proteins comprising human serum albumin
CC (ADH21550) and a therapeutic polypeptide such as a therapeutic protein,
CC antibody or peptide or their variants or fragments. The therapeutic
CC protein may be fused to the N-terminus, the C-terminus or both termini of
CC albumin via a linker. The albumin component of the fusion proteins
CC prolongs the shelf-life and the in vitro and vivo biological activity of
CC the proteins compared with those of the corresponding therapeutic
CC proteins on their own. The invention also relates to nucleic acids
CC encoding albumin fusion proteins, vectors and host cells comprising an
CC albumin fusion protein nucleic acid, compositions and kits comprising an

albumin fusion protein, the method of extending the shelf-life of a therapeutic protein by fusion with albumin, and the treatment of disease using an albumin fusion protein. The albumin fusion proteins may be used in the treatment of metabolic/endocrine disorders, diabetes and diabetes-related conditions. Specifically the albumin fusion proteins may be used to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders (especially neuropathy), retinopathy, cardiovascular disorders (especially heart disease, renal disorders and obesity). The proteins may also be used in a method of maintaining a basal glucose level in a patient and in a method for losing weight. The present sequence is related to the invention.

Sequence 674 AA:

Query Match 100.0%; Score 3568; DB 7; Length 674;
Best Local Similarity 100.0%; Pred. No. 3.8e-293;
Matches 674; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 MNIFYFLFLSPVQGLHETRRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRH 60
1 MNIFYFLFLSPVQGLHETRRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRH 60
61 GEGFTSDVSSYLEGQAKEFIAMLVKGRHSEVAHREKDLGEBENFALVLAFAQYL 120
61 GEGFTSDVSSYLEGQAKEFIAMLVKGRHSEVAHREKDLGEBENFALVLAFAQYL 120
121 QGCPFDHVKLVNEVTEPAKTCVADSEANCDKSLHTLPEDKICTAATLRETYGEMADCC 180
121 QGCPFDHVKLVNEVTEPAKTCVADSEANCDKSLHTLPEDKICTAATLRETYGEMADCC 180
181 AKQEPNNECFLOHNDNPLPRLVPEVVMCAFDNEETFLKYLVEIARRHPFYA 240
181 AKQEPNNECFLOHNDNPLPRLVPEVVMCAFDNEETFLKYLVEIARRHPFYA 240
241 PELLPFAKRYKAAFTCCQAADRAACILPRLDELDEGKASAKORLKCSLQKFGRAF 300
241 PELLPFAKRYKAAFTCCQAADRAACILPRLDELDEGKASAKORLKCSLQKFGRAF 300
301 KANAVALRSQRPKAEFAVSKLVTDITKVHTECHGDLLECADRADLAKYICENODSI 360
301 KANAVALRSQRPKAEFAVSKLVTDITKVHTECHGDLLECADRADLAKYICENODSI 360
361 SSGLKCCCEKPLEKSHCIAVENDEMPADLPISLAADFVSKQVCKNTAARAKOVFLMFL 420
361 SSGLKCCCEKPLEKSHCIAVENDEMPADLPISLAADFVSKQVCKNTAARAKOVFLMFL 420
421 YEYARRHPDYSVLLRLAKTYETTLKCCQAADPHCEYAKVDEFPKPLVEBPQNLIKON 480
421 YEYARRHPDYSVLLRLAKTYETTLKCCQAADPHCEYAKVDEFPKPLVEBPQNLIKON 480
481 CELFEQIGYKFPONALIVRTKRVPOVSTPLVEVSNLGVGSKCKKHPBAKMPCAED 540
481 CELFEQIGYKFPONALIVRTKRVPOVSTPLVEVSNLGVGSKCKKHPBAKMPCAED 540
541 YLSVNLQCLVHEKTPVSDRVKCCPESLVNRRPCCSALBVDVTPYKPFNAETFEHA 600
541 YLSVNLQCLVHEKTPVSDRVKCCPESLVNRRPCCSALBVDVTPYKPFNAETFEHA 600
601 DICTLSKERQIKKQTLVLELVKHPKATKEQLKAVNDPAAFEVCKCKADKETCPAE 660
601 DICTLSKERQIKKQTLVLELVKHPKATKEQLKAVNDPAAFEVCKCKADKETCPAE 660
661 GKQLVAASQAALGL 674
661 GKQLVAASQAALGL 674

RESULT 3
ADM45202
ID ADM45202 standard; protein; 674 AA.
XX
AC ADM45202;
XX

07-APR-2005 (first entry)
K. lactis killer toxin-GlP1-human serum albumin fusion protein SEQ 206.
fusion protein; anti-HIV; gastrointestinal-gen.; antidiabetic; anorectic;
nephrotropic; cardiatic; cytostatic; neuroprotective; immunosuppressive;
immune disorder; hematological disease; hyperproliferative disorder;
renal disease; cardiovascular disease; cardiovascular-gen.;
respiratory disorder; angioneurosis disorder; neurological disease;
wound healing; vulnery; endocrine disease; reproductive disorder;
gynecological; infectious disease; antimicrobial;
gastrointestinal disease; gene therapy; toxin; HSA; albumin;
glucagon-like peptide 1; GLP1.
Homo sapiens.
Kluyveromyces lactis.
Chimeric.
MO2005003236-A2.
13-JAN-2005.
20-JAN-2004; 2004MO-US001369.
22-JAN-2003; 2003US-0441305P.
11-MAR-2003; 2003US-0453201P.
02-MAY-2003; 2003US-0467222P.
23-MAY-2003; 2003US-0472816P.
06-JUN-2003; 2003US-0476267P.
24-SEP-2003; 2003US-0505172P.
30-SEP-2003; 2003US-0506746P.
(HUMA-) HUMAN GENOME SCI INC.
Haseltine WA, Rosen CA;
WPI; 2005-091786/10.
New albumin fusion protein for diagnosing, treating or preventing
diseases such as HIV/AIDS, diabetes, obesity, heart disease or immune
disorders comprises a therapeutic protein (e.g. CD4M33, GLP-2 or PACAP-
27) and an albumin.
Example 13; SEQ ID NO 206; 884bp; English.
The invention relates to a novel albumin fusion protein comprising a
therapeutic protein as listed in the specification in Table 1 and an
albumin comprising a sequence of SEQ ID NO: 1, or a fragment or variant
of SEQ ID NO: 1, where the fragment or variant has albumin activity and
where the albumin activity is the ability to prolong the shelf life of
the therapeutic protein compared to the shelf-life of the therapeutic
protein in an unfused state. Human serum albumin (HSA, HA) is responsible
for a significant proportion of the osmotic pressure of serum and also
functions as a carrier of endogenous and exogenous ligands. The fusion
protein of the invention demonstrates anti-HIV, gastrointestinal-gen.,
antidiabetic, anorectic, cardiatic and immunosuppressive activities. The
fusion protein may be useful for diagnosing, treating, preventing or
ameliorating diseases, such as immune disorders, blood disorders,
hyperproliferative disorders, renal disorders, cardiovascular disorders,
respiratory disorders, angioneurosis-related disorders, neurological
disorders, wound healing disorders, endocrine disorders, reproductive
disorders, infectious disorders and gastrointestinal disorders, possibly
with the use of gene therapy techniques. The current sequence is that of
the Kluyveromyces lactis killer toxin-GlP1-human serum albumin fusion
protein - SEQ 206 of the invention.

Query Match 100.0%; Score 3568; DB 9; Length 674;
Best Local Similarity 100.0%; Pred. No. 3.8e-293;
Matches 674; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
1 MNIFYFLFLSPVQGLHETRRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRH 60


```

QY 301 KAAVAVRLSORPPKAEFAEVSRLVTDLTQVTECHGDLLECAADRADLAKYICENQDS1 360
DB 301 KAAVAVRLSORPPKAEFAEVSRLVTDLTQVTECHGDLLECAADRADLAKYICENQDS1 360
QY 361 SSKLKECCCKPLLEKSHCIAEVENDEMPADLPSLADPVESKDVCKNYAEAKDVLGMFL 420
DB 361 SSKLKECCCKPLLEKSHCIAEVENDEMPADLPSLADPVESKDVCKNYAEAKDVLGMFL 420
QY 421 YERARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECTAKVDEKPLVEEPQNLIKON 480
DB 421 YERARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECTAKVDEKPLVEEPQNLIKON 480
QY 481 CELFEQLGEYKFNALVRYTKKVPQVSTPTLVESRNLGVSKCKCKPEAKRMPCAED 540
DB 481 CELFEQLGEYKFNALVRYTKKVPQVSTPTLVESRNLGVSKCKCKPEAKRMPCAED 540
QY 541 YLSVNLQCLVLEKTPVSDRVTKCTESLVNRRPCFSALEVDETYVKEFNAETFTFHA 600
DB 541 YLSVNLQCLVLEKTPVSDRVTKCTESLVNRRPCFSALEVDETYVKEFNAETFTFHA 600
QY 601 DICTLSEKERQIKKQTLAVELVGHKPKATKEQLKAVMDPFAATVEKCKKADKETCPAE 660
DB 601 DICTLSEKERQIKKQTLAVELVGHKPKATKEQLKAVMDPFAATVEKCKKADKETCPAE 660
QY 661 GKRLVAASQALGL 674
DB 661 GKRLVAASQALGL 674

```

RESULT 5

ADP16144
ID ADP16144 standard; protein; 669 AA.

AC ADP16144;

DT 12-FEB-2004 (first entry)

DE Human albumin therapeutic fusion protein Segid1211.

XX albumin fusion protein; albumin activity; human serum albumin;

XX serum osmotic pressure; shelf-life; stability; antidiabetic;

XX gene therapy; diabetes mellitus; human.

OS Chimeric.

OS Homo sapiens.

PN MO2003060071-A2.



24-JUL-2003.

PF 23-DEC-2002; 2002WO-US040891.

XX 21-DEC-2001; 2001US-0341811P.

PR 24-JAN-2002; 2002US-0350358P.

PR 28-JAN-2002; 2002US-0351356P.

PR 26-FEB-2002; 2002US-0359370P.

PR 28-FEB-2002; 2002US-0360000P.

PR 27-MAR-2002; 2002US-0367500P.

PR 08-APR-2002; 2002US-0370227P.

PR 10-MAY-2002; 2002US-0378950P.

PR 24-MAY-2002; 2002US-0382617P.

PR 28-MAY-2002; 2002US-0383123P.

PR 05-JUN-2002; 2002US-0394625P.

PR 10-JUL-2002; 2002US-0394625P.

PR 24-JUL-2002; 2002US-0398008P.

PR 09-AUG-2002; 2002US-0402131P.

PR 13-AUG-2002; 2002US-0402708P.

PR 18-SEP-2002; 2002US-0411355P.

PR 18-SEP-2002; 2002US-0411426P.

PR 02-OCT-2002; 2002US-0414984P.

PR 11-OCT-2002; 2002US-0417611P.

PR 23-OCT-2002; 2002US-0420246P.

PR 05-NOV-2002; 2002US-0423623P.

XX (HUMA-) HUMAN GENOME SCI INC.
PA (DEL2) DELTA BIOTECHNOLOGY LTD.
PA (PRIN-) PRINCIPAL PHARM CORP.

PI Balance DJ, Turner AJ, Rosen CA, Haezelte WA;

DR WPI, 2003-598517/56.

PT New albumin fusion protein, useful for preparing a composition for
creating diabetes mellitus.

XX Example 4; SEQ ID NO 1231; 24pp; English.

XX This invention relates to a novel albumin fusion protein having albumin
or biological activity. Human serum albumin is responsible for a
CC significant proportion of the osmotic pressure of serum and also
CC functions as a carrier of endogenous and exogenous ligands. The fusion of
CC albumin to a therapeutic protein may increase shelf-life and stability of
CC the therapeutic protein. The albumin fusion protein of the invention may
CC allow production of compositions with antidiabetic activity whilst the
CC nucleotide sequence which encodes it may be useful for gene therapy. The
CC albumin fusion protein is useful for preparing a composition for treating
CC diabetes mellitus. The present sequence is the amino acid sequence of a
CC novel full-length human albumin therapeutic fusion protein of the
CC invention. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from WIPO at http://wipo.int/pub/publishedpct_sequences

XX Sequence 669 AA;

Query Match 96.5%; Score 3444.5; DB 7; Length 669;

Best Local Similarity 97.3%; Pred. No. 1, le-282;

Matches 654; Conservative 4; Mismatches 5; Indels 9; Gaps 1;

QY 3 IFYIFLFLSPVQGLHETHRRGSLDKRGEGFTSVSSYSLGQAAKEFIAMLVKGRHGE 62

DB 7 ISLFLFSSAYSNR-----SLDKRGEGFTSVSSYSLGQAAKEFIAMLVKGRHGE 57

QY 63 GFTTSVSSYSLGQAAKEFIAMLVKGRDAHKEVNAHFPDGLBENFKALVLAFAQYLQO 122

DB 58 GFTTSVSSYSLGQAAKEFIAMLVKGRDAHKEVNAHFPDGLBENFKALVLAFAQYLQO 117

QY 123 CPEDHVKLVNEVTEPAKTCVADSEANCDKSLHTLFGDKLCTVATLRBTYGMADCCAK 182

DB 118 CPEDHVKLVNEVTEPAKTCVADSEANCDKSLHTLFGDKLCTVATLRBTYGMADCCAK 177

QY 183 QEPERNECFLOHNDPNLPRIVRPEVDVMTAFHDBETFLKKYIYEIARRHPYFABE 242

DB 178 QEPERNECFLOHNDPNLPRIVRPEVDVMTAFHDBETFLKKYIYEIARRHPYFABE 237

QY 243 LLEFARRYAAFTPECCOAAADKAACLPKDELDRBEKASSAQRKLCASLQKRGEPAPYA 302

DB 238 LLEFARRYAAFTPECCOAAADKAACLPKDELDRBEKASSAQRKLCASLQKRGEPAPYA 297

QY 303 WAAVARIQSOPPKAEFAEVSRLVTDLTQVTECHGDLLECAADRADLAKYICENQDS1S 362

DB 298 WAAVARIQSOPPKAEFAEVSRLVTDLTQVTECHGDLLECAADRADLAKYICENQDS1S 357

QY 363 KLKECCCKPLLEKSHCIAEVENDEMPADLPSLADPVESKDVCKNYAEAKDVLGMFLYE 422

DB 358 KLKECCCKPLLEKSHCIAEVENDEMPADLPSLADPVESKDVCKNYAEAKDVLGMFLYE 417

QY 423 YARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECTAKVDEKPLVEEPQNLIKONCE 482

DB 418 YARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECTAKVDEKPLVEEPQNLIKONCE 477

QY 483 LFEQLGEYKFNALVRYTKKVPQVSTPTLVESRNLGVSKCKCKPEAKRMPCAEDYL 542

DB 478 LFEQLGEYKFNALVRYTKKVPQVSTPTLVESRNLGVSKCKCKPEAKRMPCAEDYL 537

QY 543 SVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALEVDETYVKEFNAETFTFHA1 602

Db 538 SVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALVEDETVYPKEFNATFTFHADI 597
 QY 603 CTLSEKERQIKKQTLAVELVKHPRATKEQLKAVMDPAFAVEKCKADKXETCPAEBGK 662
 Db 598 CTLSEKERQIKKQTLAVELVKHPRATKEQLKAVMDPAFAVEKCKADKXETCPAEBGK 657
 QY 663 KLVAAISOALGL 674
 Db 658 KLVAAISOALGL 669
 RESULT 6
 ADH21622
 ID ADH21622 standard; protein; 669 AA.
 AC ADH21622;
 XX
 DT 11-MAR-2004 (first entry)
 XX
 DE Human albumin/GLP-1(7-36(A8G)) fusion protein, SEQ ID NO:419.
 XX
 XX Fusion protein; human serum albumin; HSA; therapeutic protein;
 KW shelf-life in vitro biological activity; in vivo biological activity;
 KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
 KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiant;
 KW anorectic; ophthalmological; gene therapy.
 XX
 OS Synthetic.
 OS Chimeric.
 OS Homo sapiens.
 XX
 PN WO2003059934-A2.
 XX
 PD 24-JUL-2003.
 XX
 PD 23-DEC-2002; 2002WO-US040892.
 XX
 PF 21-DEC-2001; 2001US-034181P.
 XX
 PR 24-JAN-2002; 2002US-0350358P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-036000P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0379850P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 XX
 PI Rosen CA, Haseltine WA;
 XX
 DR WPI, 2003-598501/56.
 XX
 PT New albumin fusion protein, useful for preparing a composition for
 XX treating diabetes mellitus.
 XX
 PS Disclosure; SEQ ID NO 419; 1086pp; English.
 XX
 CC The invention relates to fusion proteins comprising human serum albumin
 CC (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
 CC antibody or peptide or their variants or fragments. The therapeutic
 CC protein may be fused to the N-terminus, the C-terminus or both termini of
 CC albumin via a linker. The albumin component of the fusion proteins
 CC prolongs the shelf-life and the in vitro and vivo biological activity of
 CC the proteins compared with those of the corresponding therapeutic

CC proteins on their own. The invention also relates to nucleic acids
 CC encoding albumin fusion proteins, vectors and host cells comprising an
 CC albumin fusion protein nucleic acid, compositions and kits comprising an
 CC albumin fusion protein, the method of extending the shelf-life of a
 CC therapeutic protein by fusion with albumin, and the treatment of disease
 CC using an albumin fusion protein. The albumin fusion proteins may be used
 CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
 CC related conditions. Specifically the albumin fusion proteins may be used
 CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
 CC (especially neuropathy), retinopathy, cardiovascular disorders
 CC (especially heart disease, renal disorders and obesity. The proteins may
 CC also be used in a method of maintaining a basal glucose level in a
 CC patient and in a method for losing weight. The present sequence is
 CC related to the invention.
 CC
 SQ Sequence 669 AA;
 Query Match 96.5%; Score 3444.5; DB 7; Length 669;
 Best Local Similarity 97.3%; Pred. No. 1.1e-282;
 Matches 654; Conservative 4; Mismatches 5; Indels 9; Gaps 1;
 QY 3 IFYIFLPLSFVQGLHTRRGSJDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGE 62
 Db 7 ISLILFSSAYS-----SLDKRGEFTSDVSSYLEGQAAKEFIAMLVKGRHGE 57
 QY 63 GTFTSDVSSYLEGQAAKEFIAMLVKGRDAKSEVAHFKDIGENFKALVLIAPQYIQ 122
 Db 58 GTFTSDVSSYLEGQAAKEFIAMLVKGRDAKSEVAHFKDIGENFKALVLIAPQYIQ 117
 QY 123 CPFEHNVKLNVVEFPATCVADSAENCDLSIHTLPDGLCTVATLAETTGEMADCCAK 182
 Db 118 CPFEHNVKLNVVEFPATCVADSAENCDLSLHTLPDGLCTVATLAETTGEMADCCAK 177
 QY 183 QEPERNCEFLGHKDNPNILPRILVREPVVMCTAFHNETEFLKKYLIARHRYFAVE 242
 Db 178 QEPERNCEFLGHKDNPNILPRILVREPVVMCTAFHNETEFLKKYLIARHRYFAVE 237
 QY 243 ILFFAKRYKAAFTCCQADAKACILPKLDELDEGKASSAKORLKCSLOKFGGRARKA 302
 Db 238 ILFFAKRYKAAFTCCQADAKACILPKLDELDEGKASSAKORLKCSLOKFGGRARKA 297
 QY 303 WAVARLSQRPKAEFAEVSKLVTDLTKVHTECCHGDLLECADRDADLAKYICENDSIS 362
 Db 298 WAVARLSQRPKAEFAEVSKLVTDLTKVHTECCHGDLLECADRDADLAKYICENDSIS 357
 QY 363 KLECCCEKPLEKSHCIAEVENDEMPADLPISLAADFVESKDYCKNYAKAKVFLGMPLYE 422
 Db 358 KLECCCEKPLEKSHCIAEVENDEMPADLPISLAADFVESKDYCKNYAKAKVFLGMPLYE 417
 QY 423 YARRHPDYSVVLILRLATYETTTLEKCCAADPHECVAKVDEFPRLVEBPONLIKONCE 482
 Db 418 YARRHPDYSVVLILRLATYETTTLEKCCAADPHECVAKVDEFPRLVEBPONLIKONCE 477
 QY 483 LFEQIGETKFGQALLVRYTKKVPQYSTPLVVEVSNIAGKSGCKCKHPEAKMPADLYL 542
 Db 478 LFEQIGETKFGQALLVRYTKKVPQYSTPLVVEVSNIAGKSGCKCKHPEAKMPADLYL 537
 QY 543 SVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALVEDETVYPKEFNATFTFHADI 602
 Db 538 SVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALVEDETVYPKEFNATFTFHADI 597
 QY 603 CTLSEKERQIKKQTLAVELVKHPRATKEQLKAVMDPAFAVEKCKADKXETCPAEBGK 662
 Db 598 CTLSEKERQIKKQTLAVELVKHPRATKEQLKAVMDPAFAVEKCKADKXETCPAEBGK 657
 QY 663 KLVAAISOALGL 674
 Db 658 KLVAAISOALGL 669
 RESULT 7
 ADH16525
 ID ADH16525 standard; protein; 730 AA.

XX ADP1525;
 AC 12-FEB-2004 (first entry)
 DT Human albumin therapeutic fusion protein SeqID1622.
 XX
 DE albumin fusion protein; albumin activity; human serum albumin;
 KW serum osmotic pressure; shelf-life; stability; antidiabetic;
 KM gene therapy; diabetes mellitus; human.
 XX
 OS Chimeric.
 OS Homo sapiens.
 XX WO2003060071-A2.
 PN 24-JUL-2003.
 PD
 XX 23-DEC-2002; 2002WO-US040891.
 PF 21-DEC-2001; 2001US-0341811P.
 XX 28-JAN-2002; 2002US-0350358P.
 PR 28-JAN-2002; 2002US-0351360P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360000P.
 PR 27-MAR-2002; 2002US-0376500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-MAY-2002; 2002US-0382617P.
 PR 28-MAY-2002; 2002US-0383123P.
 PR 05-JUN-2002; 2002US-0385708P.
 PR 10-JUL-2002; 2002US-0394625P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 18-SEP-2002; 2002US-0411426P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 PA (DELZ-) DELTA BIOTECHNOLOGY LTD.
 PA (PRIN-) PRINCIPAL PHARM CORP.
 XX
 PI Ballance DJ, Turner AJ, Rosen CA, Haseltine WA;
 DR WPI; 2003-598517/56.
 XX
 PT New albumin fusion protein, useful for preparing a composition for
 PT treating diabetes mellitus.
 XX
 PS Example 4; SEQ ID NO 1622; 24pp; English.
 XX
 CC This invention relates to a novel albumin fusion protein having albumin
 CC or biological activity. Human serum albumin is responsible for a
 CC significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion of
 CC albumin to a therapeutic protein may increase shelf-life and stability of
 CC the therapeutic protein. The albumin fusion protein of the invention may
 CC allow production of compositions with antidiabetic activity whilst the
 CC nucleotide sequence which encodes it may be useful for gene therapy. The
 CC albumin fusion protein is useful for preparing a composition for treating
 CC diabetes mellitus. The present sequence is the amino acid sequence of a
 CC novel full-length human albumin therapeutic fusion protein of the
 CC invention. Note: The sequence data for this patent did not form part of
 CC the printed specification, but was obtained in electronic format directly
 CC from WIPO at ftp.wipo.int/pub/publishedpct_sequences
 CC
 XX Sequence 730 AA;
 SQ

Best Local Similarity 97.8%; Pred. No. 1.4e-282;
 Matches 652; Conservative 4; Mismatches 11; Indels 0; Gaps 0;
 QY 8 LPLLSFVQLEHTHRGSLDKRGSGTPTSDVSSYLEGQAAKEFIAMLVKGGHGGSTPTS 67
 ||: : : :
 Db 64 LPLNTTIAISIAAKEBEGVSLDKRGHGGTFTSDVSSYLEGQAAKEFIAMLVKGGHGGSTPTS 123
 QY 68 DVSSYLEGQAAKEFIAMLVKGGDAHKESEVAHAFKDLGSENFALVLIAPQYLQCCPFED 127
 |||||
 Db 124 DVSSYLEGQAAKEFIAMLVKGGDAHKESEVAHAFKDLGSENFALVLIAPQYLQCCPFED 183
 QY 128 HVKLVEVTEPAKTCVADSESAENCDSLHTLPFGDKICTVATTLRETYGEMADCCAKOEPR 187
 |||||
 Db 184 HVKLVEVTEPAKTCVADSESAENCDSLHTLPFGDKICTVATTLRETYGEMADCCAKOEPR 243
 QY 188 NECFLOHKDNPRLPRLVPRVVDVMTAFHNDDEFTLKKYLYEIAHRRHYFPAPBLLPFA 247
 |||||
 Db 244 NECFLOHKDNPRLPRLVPRVVDVMTAFHNDDEFTLKKYLYEIAHRRHYFPAPBLLPFA 303
 QY 248 KRYKAFTCCQADRAACILPRLDELREDEGRKASSAKORLKCASLQKFGERAFAKAAVAVR 307
 |||||
 Db 304 KRYKAFTCCQADRAACILPRLDELREDEGRKASSAKORLKCASLQKFGERAFAKAAVAVR 363
 QY 308 LSGRPFKAEPFAEVSKLVTDLTKVHTCCGADLLBCADPRADLAKYICENODSISRLKGC 367
 |||||
 Db 364 LSGRPFKAEPFAEVSKLVTDLTKVHTCCGADLLBCADPRADLAKYICENODSISRLKGC 423
 QY 368 CEKPLLEKSHCIAEVENDEMPADLPRLADPVESKVCNRYAEAKVFLGMPLEYEARRR 427
 |||||
 Db 424 CEKPLLEKSHCIAEVENDEMPADLPRLADPVESKVCNRYAEAKVFLGMPLEYEARRR 483
 QY 428 PDYSVVLLRLAKTYETTLKCCAAADPHECAKVPDEKPLVEEPQNLIKONCELPFEOI 487
 |||||
 Db 484 PDYSVVLLRLAKTYETTLKCCAAADPHECAKVPDEKPLVEEPQNLIKONCELPFEOI 543
 QY 488 GEYKFNALLVRYTKVPQVSTPTLVEVSRLGVSKCKCKPEARMPCAEDYLSVLTN 547
 |||||
 Db 544 GEYKFNALLVRYTKVPQVSTPTLVEVSRLGVSKCKCKPEARMPCAEDYLSVLTN 603
 QY 548 QLCVLEHKTIPVSDRVTKCTCESLVNRRPCPSALEVDETVPKPEFNMTFTFHADICTLSE 607
 |||||
 Db 604 QLCVLEHKTIPVSDRVTKCTCESLVNRRPCPSALEVDETVPKPEFNMTFTFHADICTLSE 663
 QY 608 KERQIKKQTAIVELVNHKKPKATKEOLKAVWDDPAFVTEKCKRADDKETCFABEGKKLVAA 667
 |||||
 Db 664 KERQIKKQTAIVELVNHKKPKATKEOLKAVWDDPAFVTEKCKRADDKETCFABEGKKLVAA 723
 QY 668 SQAAAGL 674
 |||||
 Db 724 SQAAAGL 730
 RESULT 8
 ADH21813
 ID ADH21813 standard; protein; 730 AA.
 XX
 AC ADH21813;
 XX
 DT 11-MAR-2004 (first entry)
 XX
 DE Human albumin/GUP-1(7-36(A8G)) fusion protein, SEQ ID NO:610.
 XX
 KW Fusion protein; human serum albumin; HSA; therapeutic protein;
 KW shelf-life; in vitro biological activity; in vivo biological activity;
 KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
 KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiac;
 KW anorectic; ophthalmological; gene therapy.
 XX
 OS Synthetic.
 OS Chimeric.
 OS Homo sapiens.

Query Match 96.5%; Score 3444; DB 7; Length 730;

[illegible]

QY	188	NECFLOHKDNDPNLPLVLPVPEVDVWCTAFHNDNEEFLFKKYLVEIARRHPPYVAPBELLFPA	247
Db	244	NECFLOHKDNDPNLPLVLPVPEVDVWCTAFHNDNEEFLFKKYLVEIARRRPPYVAPBELLFPA	3030
QY	248	KRYKAAFTTECCCAADRAACILPRBELRDEGKASAKORLKCASIQKGEPAFPAWAVAR	3078
Db	304	KRYKAAFTTECCCAADRAACILPRBELRDEGKASAKORLKCASIQKGEPAFPAWAVAR	3658
QY	308	LSORFPKAEFAEVSUKLVTDLTQVHTECHGDLLECCADRADLIARYICENODS ISSKJKEC	3678
Db	364	LSORFPKAEFAEVSUKLVTDLTQVHTECHGDLLECCADRADLAKYICENODS ISSKJKEC	4228
QY	368	CEPKLLEKSGCIAEVENDEMPADLPSIADPVESKDVCKNYAAEKDVFGLMFLYEYARRH	4278
Db	424	CEPKLLEKSGCIAEVENDEMPADLPSIADPVESKDVCKNYAAEKDVFGLMFLYEYARRH	4838
QY	428	PDSVSVLLRLAKTYETTELKECCCAADPHECYAKVPDEFKPLVEBPONLIKONCELEPOL	4878
Db	484	PDSVSVLLRLAKTYETTELKECCCAADPHECYAKVPDEFKPLVEBPONLIKONCELEPOL	5438
QY	488	GEYKFPQALLIVRTTKVPOVSTPLVENVSRNIGTKVSGCKCKHPEAKRMPCAEDYLSVVLN	5478
Db	544	GEYKFPQALLIVRTTKVPOVSTPLVENVSRNIGTKVSGCKCKHPEAKRMPCAEDYLSVVLN	6038
QY	548	QLCVLHEKTPVPSRWKRCCTESLVNRRPCFSALIEYDETYYPEEFNAEFTFHADICTLSE	6078
Db	604	QLCVLHEKTPVPSRWKRCCTESLVNRRPCFSALIEYDETYYPEEFNAEFTFHADICTLSE	6638
QY	608	KEROIKKQZALVELVGHKPKATKEOLKAVMDFAAFVEKCKKADDETCFAEBSKSLVAA	6678
Db	664	KERQIKKQZALVELVGHKPKATKEOLKAVMDFAAFVEKCKKADDETCFAEBSKSLVAA	7238
QY	668	SOAALGL 674	
Db	724	SOAALGL 730	
RESULT 9			
ADP16150	ID	ADP16150 standard; protein; 669 AA.	
XX	XX		
AC	ADP16150;		
XX	XX		
DT	12-FEB-2004 (first entry)		
DE	Human albumin therapeutic fusion protein SegID1237.		
XX	XX		
KW	albumin fusion protein; albumin activity; human serum albumin;		
KW	serum osmotic pressure; shelf-life; stability; antidiabetic;		
KW	gene therapy; diabetes mellitus; human.		
OS	Chimeric.		
OS	Homo sapiens.		
XX	XX		
PN	WO2003060071-A2.		
PD	24-JUL-2003.		
XX	XX		
PF	23-DEC-2002; 2002MO-US040891.		
XX	XX		
PR	21-DEC-2001; 2001US-034181P.		
PR	24-JAN-2002; 2002US-035038P.		
PR	28-JAN-2002; 2002US-035136P.		
PR	26-FEB-2002; 2002US-035937P.		
PR	28-FEB-2002; 2002US-036000P.		
PR	27-MAR-2002; 2002US-036750P.		
PR	08-APR-2002; 2002US-0370227P.		
PR	10-MAY-2002; 2002US-0378950P.		
PR	24-MAY-2002; 2002US-0382617P.		
PR	28-MAY-2002; 2002US-0385708P.		
PR	05-JUN-2002; 2002US-0394625P.		
PR	10-JUL-2002; 2002US-0394625P.		

24-JUL-2002; 2002US-0398008P.
PR 09-AUG-2002; 2002US-0402131P.
PR 13-AUG-2002; 2002US-0402708P.
PR 18-SEP-2002; 2002US-0411355P.
PR 18-SEP-2002; 2002US-0411426P.
PR 02-OCT-2002; 2002US-0414984P.
PR 11-OCT-2002; 2002US-0417611P.
PR 23-OCT-2002; 2002US-0420246P.
PR 05-NOV-2002; 2002US-0423623P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
PA (DELZ) DELTA BIOTECHNOLOGY LTD.
PA (PRIN-) PRINCIPAL PHARM CORP.
PI Ballance DJ, Turner AJ, Rosen CA, Haseltine WA;
XX WPI; 2003-598517/56.
XX
XX New albumin fusion protein, useful for preparing a composition for
PT treating diabetes mellitus.
XX
XX Example 4; SEQ ID NO 1237; 24pp; English.
XX
XX This invention relates to a novel albumin fusion protein having albumin
CC or biological activity. Human serum albumin is responsible for a
CC significant proportion of the osmotic pressure of serum and also
CC functions as a carrier of endogenous and exogenous ligands. The fusion of
CC albumin to a therapeutic protein may increase shelf-life and stability of
CC the therapeutic protein. The albumin fusion protein of the invention may
CC allow production of compositions with antidiabetic activity whilst the
CC nucleotide sequence which encodes it may be useful for gene therapy. The
CC albumin fusion protein is useful for preparing a composition for treating
CC diabetes mellitus. The present sequence is the amino acid sequence of a
CC novel full-length human albumin therapeutic fusion protein of the
CC invention. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from WIPO at http://wipo.int/pub/publichedpct_sequences
XX
XX Sequence 669 AA;
SQ

Query Match 96.4%; Score 3438.5; DB 7; Length 669;
Best Local Similarity 97.2%; Pred. No. 3.5e-282;
Matches 653; Conservative 4; Mismatches 6; Indels 9; Gaps 1;

3 IFYIFLFLSFVQGLHETHRGSLDKKHGEFTSDVSSYLEGQAQAEFTAMLVKGNHGE 62
7 ISLFLFSASYSR-----SLDKKHGEFTSDVSSYLEGQAQAEFTAMLVKGNHAE 57
63 GTFPSDVSSYLEGQAQAEFTAMLVKGNDAHKSRYAHRPKDGENEFKALVLIARQYLQ 122
58 GTFPSDVSSYLEGQAQAEFTAMLVKGNDAHKSRYAHRPKDGENEFKALVLIARQYLQ 117
123 CPFPDHYKLVNEVEFPKACTCVADESANCDKSLTTLFGDKLCTAATRETGEMADCCAK 182
118 CPFPDHYKLVNEVEFPKACTCVADESANCDKSLTTLFGDKLCTAATRETGEMADCCAK 177
183 QEPERNECFLQHKDNDNPLPRLVAREVDVMCTAFHNEETFLKXLYEIAARRDPYAP 242
178 QEPERNECFLQHKDNDNPLPRLVAREVDVMCTAFHNEETFLKXLYEIAARRDPYAP 237
243 LLPFAKYYKAAFTCCQAADQAACLLPRLDBLRBEGGASSAKQMLKCASTOKFERAPKA 302
238 LLPFAKYYKAAFTCCQAADQAACLLPRLDBLRBEGGASSAKQMLKCASTOKFERAPKA 297
303 WAVARLSORPFAKFAEVSRLVTDLTQVHTCCGHDLLSCADRADLAKYICENQDSISS 362
298 WAVARLSORPFAKFAEVSRLVTDLTQVHTCCGHDLLSCADRADLAKYICENQDSISS 357
363 KLKSCCEKPELLEKSHCIAVENDEMPADLPRLAADPVESKVCQNYAFAKQVFGMFLYE 422
358 KLKSCCEKPELLEKSHCIAVENDEMPADLPRLAADPVESKVCQNYAFAKQVFGMFLYE 417
423 YARRHPDYSVVLLRLAKTYETLEKCAADPHECTAKYVDEKPKLVEEPQNLKQNC 482

418 YARRHPDYSVVLLRLAKTYETLEKCAADPHECTAKYVDEKPKLVEEPQNLKQNC 477
483 LPEQLGEYKFNALIVRYTKVPOYSTPLVSEVSNLGVGSKCKGHPAKKMPCAEDYL 542
478 LPEQLGEYKFNALIVRYTKVPOYSTPLVSEVSNLGVGSKCKGHPAKKMPCAEDYL 537
543 SVTLNQLCVLHETKTPVSDRVTCKCTESLVNRRPCEFSALEVDETYVPKEFNAETFTHAD 602
538 SVTLNQLCVLHETKTPVSDRVTCKCTESLVNRRPCEFSALEVDETYVPKEFNAETFTHAD 597
603 CTLSKERQIKQTALVELVVKPKATKQQLAVNDPFAAPFKCKKADDKETCPAEBGK 662
598 CTLSKERQIKQTALVELVVKPKATKQQLAVNDPFAAPFKCKKADDKETCPAEBGK 657
663 KLVAAASQALGL 674
658 KLVAAASQALGL 669

RESULT 10

ADH21628
ID ADH21628 standard; protein; 669 AA.

ADH21628;
AC

11-MAR-2004 (first entry)
DT

Human albumin/GLP-1(7-36(A8G)) fusion protein, SEQ ID NO:425.
DE

Fusion protein; human serum albumin; HSA; therapeutic protein;
KM shelf-life; in vitro biological activity; in vivo biological activity;
KM metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
KM diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
KM retinopathy; cardiovascular disorder; heart disease; renal disorder;
KM obesity; glucose level maintenance; weight loss; antidiabetic; cardiac;
KM anorectic; ophthalmological; gene therapy.
KM
XX

Synthetic.
OS

Chimeric.
OS

Homo sapiens.
OS

MO2003059934-A2.
PN

24-JUL-2003.
PD

23-DEC-2002; 2002MO-US040892.
PF

21-DEC-2001; 2001US-0341811P.
PR 24-JAN-2002; 2002US-0350358P.
PR 26-FEB-2002; 2002US-0359370P.
PR 28-FEB-2002; 2002US-0360000P.
PR 27-MAR-2002; 2002US-0367500P.
PR 08-APR-2002; 2002US-0370227P.
PR 10-MAY-2002; 2002US-0378950P.
PR 24-JUL-2002; 2002US-0398008P.
PR 09-AUG-2002; 2002US-0402131P.
PR 13-AUG-2002; 2002US-0402708P.
PR 18-SEP-2002; 2002US-0411355P.
PR 02-OCT-2002; 2002US-0414984P.
PR 11-OCT-2002; 2002US-0417611P.
PR 23-OCT-2002; 2002US-0420246P.
PR 05-NOV-2002; 2002US-0423623P.
PR

(HUMA-) HUMAN GENOME SCI INC.
PA

Rosen CA, Haseltine WA;
PI

WPI; 2003-598501/56.
XX

New albumin fusion protein, useful for preparing a composition for
PT treating diabetes mellitus.
XX

CC diabetes mellitus. The present sequence is the amino acid sequence of a
CC novel full-length human albumin therapeutic fusion protein of the
CC invention. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/publshdept_sequences

XX Sequence 730 AA;

Query Match 96.4%; Score 3438; DB 7; Length 730;
Best Local Similarity 97.6%; Pred. No. 4,4e-282;
Matches 651; Conservative 4; Mismatches 12; Indels 0; Gaps 0;

QY 8 LPLSLVQGLHHRHRSGLDKRHGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTS 67
DB LPLNTTASIAAKEEGVSLDKRHGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTS 123
QY 68 DVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTS 127
DB 124 DVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTS 183
QY 128 HVTLVNVEVFACVADSEANCDKSLHTLFGDKLCTVATLTETTGEMADCCAKQEPER 187
DB 184 HVTLVNVEVFACVADSEANCDKSLHTLFGDKLCTVATLTETTGEMADCCAKQEPER 243
QY 188 NECFLOHKNQPMPLPLVREPVNMCFAFDNEETPLKKYLIARHPYFVAPELLFPA 247
DB 244 NECFLOHKNQPMPLPLVREPVNMCFAFDNEETPLKKYLIARHPYFVAPELLFPA 303
QY 248 KRYKAAFTTECCOAAKRAKCLPKLDELDEGKASAKORLKCSLQKFGERRAFKANAVAR 307
DB 304 KRYKAAFTTECCOAAKRAKCLPKLDELDEGKASAKORLKCSLQKFGERRAFKANAVAR 363
QY 308 LSGRPFKAPEAVSKLVTDLTQVHTTECHGDLLECADRRADLAKYICENQDSISSKLEK 367
DB 364 LSGRPFKAPEAVSKLVTDLTQVHTTECHGDLLECADRRADLAKYICENQDSISSKLEK 423
QY 368 CERPLLEKSHCTAENVENDENPDLPSLAAPVSKYCKRYAAKQVFLGMPLYEYARRH 427
DB 424 CERPLLEKSHCTAENVENDENPDLPSLAAPVSKYCKRYAAKQVFLGMPLYEYARRH 483
QY 428 PDYSVVLTLRLATYETLTLEKCAADPHCEYAKVDFEPLVEEPONLIKONCELEFOL 487
DB 484 PDYSVVLTLRLATYETLTLEKCAADPHCEYAKVDFEPLVEEPONLIKONCELEFOL 543
QY 488 GEYKFOALIVRYTKKVPQVSTPLVYSNLLGVSKCKKHPBAKMPCAEDYLSVIAN 547
DB 544 GEYKFOALIVRYTKKVPQVSTPLVYSNLLGVSKCKKHPBAKMPCAEDYLSVIAN 603
QY 548 QLCVLHEKTPVSDRVYKCTESLVNRRPCTSALEVDETVYPKENAFETFFHADICTLSE 607
DB 604 QLCVLHEKTPVSDRVYKCTESLVNRRPCTSALEVDETVYPKENAFETFFHADICTLSE 663
QY 608 KESQIKKQTLVNLVYKHPKATKEQLKAWMDFAAFVSKCKKADDKETCAEBSGKLVA 667
DB 664 KESQIKKQTLVNLVYKHPKATKEQLKAWMDFAAFVSKCKKADDKETCAEBSGKLVA 723
QY 668 SQAAALGL 674
DB 724 SQAAALGL 730

RESULT 12
ADH21815
ID ADH21815 standard; protein; 730 AA.

XX ADH21815;
XX
XX 11-MAR-2004 (first entry)
XX
XX Human albumin/GSP-1(7-36(A8G)) fusion protein, SEQ ID NO:612.
XX
XX Fusion protein; human serum albumin; HSA; therapeutic protein;
XX shelf-life; in vitro biological activity; in vivo biological activity;
KM

KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
KW diabetes-related condition; hyperglycemia; neural disorder; neuropathy;
KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiant;
KW anorectic; ophthalmological; gene therapy.

XX Synthetic.
OS Chimeric.
OS Homo sapiens.

PN WO2003059934-A2.

PD 24-JUL-2003.

PP 23-DEC-2002; 2002WO-US040892.

PR 21-DEC-2001; 2001US-0341811P.

PR 24-JAN-2002; 2002US-035038B.

PR 26-FEB-2002; 2002US-0359370P.

PR 28-FEB-2002; 2002US-036000P.

PR 27-MAR-2002; 2002US-0367500P.

PR 08-APR-2002; 2002US-0370227P.

PR 10-MAY-2002; 2002US-0378950P.

PR 24-JUL-2002; 2002US-0398008P.

PR 09-AUG-2002; 2002US-0402131P.

PR 13-AUG-2002; 2002US-0402708P.

PR 18-SEP-2002; 2002US-0411355P.

PR 02-OCT-2002; 2002US-0414984P.

PR 11-OCT-2002; 2002US-0417611P.

PR 23-OCT-2002; 2002US-0420246P.

PR 05-NOV-2002; 2002US-0423623P.

(HUMA-) HUMAN GENOME SCI INC.

PI Rosen CA, Haseltine WA;

PI WPI; 2003-598501/56.

PT New albumin fusion protein, useful for preparing a composition for
PT treating diabetes mellitus.

PS Disclosure; SEQ ID NO 612; 1086pp; English.

XX The invention relates to fusion proteins comprising human serum albumin
XX (ADH21815) and a therapeutic polypeptide such as a therapeutic protein,
XX antibody or peptide or their variants or fragments. The therapeutic
XX protein may be fused to the N-terminus, the C-terminus or both termini of
XX albumin via a linker. The albumin component of the fusion proteins
XX prolongs the shelf-life and the in vitro and vivo biological activity of
XX the proteins compared with those of the corresponding therapeutic
XX proteins on their own. The invention also relates to nucleic acids
XX encoding albumin fusion proteins, vectors and host cells comprising an
XX albumin fusion protein nucleic acid, compositions and kits comprising an
XX albumin fusion protein, the method of extending the shelf-life of a
XX therapeutic protein by fusion with albumin, and the treatment of disease
XX using an albumin fusion protein. The albumin fusion proteins may be used
XX in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
XX related conditions. Specifically the albumin fusion proteins may be used
XX to treat type 1 and type 2 diabetes, hyperglycemia, neural disorders
XX (especially neuropathy), retinopathy, cardiovascular disorders
XX (especially heart disease, renal disorders and obesity. The proteins may
XX also be used in a method of maintaining a basal glucose level in a
XX patient and in a method for losing weight. The present sequence is
XX related to the invention.

SQ Sequence 730 AA;

Query Match 96.4%; Score 3438; DB 7; Length 730;
Best Local Similarity 97.6%; Pred. No. 4,4e-282;
Matches 651; Conservative 4; Mismatches 12; Indels 0; Gaps 0;

QY 8 LPLSLVQGLHHRHRSGLDKRHGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTS 67
DB LPLNTTASIAAKEEGVSLDKRHGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTS 123
QY 68 DVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTS 127
DB 124 DVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTS 183
QY 128 HVTLVNVEVFACVADSEANCDKSLHTLFGDKLCTVATLTETTGEMADCCAKQEPER 187
DB 184 HVTLVNVEVFACVADSEANCDKSLHTLFGDKLCTVATLTETTGEMADCCAKQEPER 243
QY 188 NECFLOHKNQPMPLPLVREPVNMCFAFDNEETPLKKYLIARHPYFVAPELLFPA 247
DB 244 NECFLOHKNQPMPLPLVREPVNMCFAFDNEETPLKKYLIARHPYFVAPELLFPA 303
QY 248 KRYKAAFTTECCOAAKRAKCLPKLDELDEGKASAKORLKCSLQKFGERRAFKANAVAR 307
DB 304 KRYKAAFTTECCOAAKRAKCLPKLDELDEGKASAKORLKCSLQKFGERRAFKANAVAR 363
QY 308 LSGRPFKAPEAVSKLVTDLTQVHTTECHGDLLECADRRADLAKYICENQDSISSKLEK 367
DB 364 LSGRPFKAPEAVSKLVTDLTQVHTTECHGDLLECADRRADLAKYICENQDSISSKLEK 423
QY 368 CERPLLEKSHCTAENVENDENPDLPSLAAPVSKYCKRYAAKQVFLGMPLYEYARRH 427
DB 424 CERPLLEKSHCTAENVENDENPDLPSLAAPVSKYCKRYAAKQVFLGMPLYEYARRH 483
QY 428 PDYSVVLTLRLATYETLTLEKCAADPHCEYAKVDFEPLVEEPONLIKONCELEFOL 487
DB 484 PDYSVVLTLRLATYETLTLEKCAADPHCEYAKVDFEPLVEEPONLIKONCELEFOL 543
QY 488 GEYKFOALIVRYTKKVPQVSTPLVYSNLLGVSKCKKHPBAKMPCAEDYLSVIAN 547
DB 544 GEYKFOALIVRYTKKVPQVSTPLVYSNLLGVSKCKKHPBAKMPCAEDYLSVIAN 603
QY 548 QLCVLHEKTPVSDRVYKCTESLVNRRPCTSALEVDETVYPKENAFETFFHADICTLSE 607
DB 604 QLCVLHEKTPVSDRVYKCTESLVNRRPCTSALEVDETVYPKENAFETFFHADICTLSE 663
QY 608 KESQIKKQTLVNLVYKHPKATKEQLKAWMDFAAFVSKCKKADDKETCAEBSGKLVA 667
DB 664 KESQIKKQTLVNLVYKHPKATKEQLKAWMDFAAFVSKCKKADDKETCAEBSGKLVA 723
QY 668 SQAAALGL 674
DB 724 SQAAALGL 730

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Db      64 LPIINTIASIAKEBGSISLDRHGEFTFTSDVSSYLEGQAAKEFIAMLVKGRHASTFTMS 123
Qy      68 DVSSYLEGQAAKEFIAMLVKGRDAHSEVAHREKDLGEENFKALVLIAPAOYLQCCPFED 127
Db      124 DVSSYLEGQAAKEFIAMLVKGRDAHSEVAHREKDLGEENFKALVLIAPAOYLQCCPFED 183
Qy      128 HYKLVNEVTEPAKTCVADBSAENCDSKSLHTLPFDKLCCTVAITLRETYGEMADCCAKCEPR 187
Db      184 HYKLVNEVTEPAKTCVADBSAENCDSKSLHTLPFDKLCCTVAITLRETYGEMADCCAKCEPR 243
Qy      188 NCGFLQHKDNPMLPRLVREPVDMCTAFHNDNEETFLKKYLYEIAHRHFFYAPPELLFPA 247
Db      244 NCGFLQHKDNPMLPRLVREPVDMCTAFHNDNEETFLKKYLYEIAHRHFFYAPPELLFPA 303
Qy      248 KRYKAATECCQAAADRAACLLPKLDELDRDGGKASSAKORLKCSLQKFGERAFAKAVAR 307
Db      304 KRYKAATECCQAAADRAACLLPKLDELDRDGGKASSAKORLKCSLQKFGERAFAKAVAR 363
Qy      308 LSGRPFKAFAEVSQKLVTDLTQVHTCCGGLDLKCADDDRADLAKYICENODSISSTLKEC 367
Db      364 LSGRPFKAFAEVSQKLVTDLTQVHTCCGGLDLKCADDDRADLAKYICENODSISSTLKEC 423
Qy      368 CEKPLLEKSHCIAEVENDEMPADLPSLADFVESKDVCKRYVAEAKDVPFGMFLYEXARH 427
Db      424 CEKPLLEKSHCIAEVENDEMPADLPSLADFVESKDVCKRYVAEAKDVPFGMFLYEXARH 483
Qy      428 PDYSVLLRLAKTYETTELKCCAAADPHCYAKVDEFEKPLVEEPQNLIKONCELLFEQL 487
Db      484 PDYSVLLRLAKTYETTELKCCAAADPHCYAKVDEFEKPLVEEPQNLIKONCELLFEQL 543
Qy      488 GEYKFNALLVRYTKVPOVSTPTLVESRNIGKVSCKCKPEAKRMCAEDYLSVTN 547
Db      544 GEYKFNALLVRYTKVPOVSTPTLVESRNIGKVSCKCKPEAKRMCAEDYLSVTN 603
Qy      548 QLCVHLEKTPVSRVTKCCESLVNRRPCGSALEVEDETVPKFNATETPHADICTLSE 607
Db      604 QLCVHLEKTPVSRVTKCCESLVNRRPCGSALEVEDETVPKFNATETPHADICTLSE 663
Qy      608 KERQIKKQATALVELVGHKPKATKEQLKAVMDPFAAIVEKCKKADKCTCFABEGKKLVAA 667
Db      664 KERQIKKQATALVELVGHKPKATKEQLKAVMDPFAAIVEKCKKADKCTCFABEGKKLVAA 723
Qy      668 SQAAALGL 674
Db      724 SQAAALGL 730

RESULT 13
ADFL6149
ID      ADFL6149 standard; protein; 669 AA.
XX
AC      ADFL6149;
XX
DT      12-FEB-2004 (first entry)
XX
DE      Human albumin therapeutic fusion protein SegID1236.
XX
KW      albumin fusion proteain; albumin activity; human serum albumin;
KW      serum osmotic pressure; shelf-life; stability; antidiabetic;
KW      gene therapy; diabetes mellitus; human.
XX
OS      Chimeric.
OS      Homo sapiens.
XX
PN      MO2003060071-A2.
XX
PD      24-JUL-2003.
XX
PF      23-DEC-2002; 2002WO-US040891.
PR      21-DEC-2001; 2001US-034181P.
PR      24-JAN-2002; 2002US-0350358P.
PR      28-JAN-2002; 2002US-0351360P.
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PR      26-FEB-2002; 2002US-0359370P.
PR      28-FEB-2002; 2002US-036000P.
PR      27-MAR-2002; 2002US-0367500P.
PR      08-APR-2002; 2002US-0370227P.
PR      10-MAY-2002; 2002US-0378950P.
PR      24-MAY-2002; 2002US-0382617P.
PR      28-MAY-2002; 2002US-0383123P.
PR      05-JUN-2002; 2002US-0385708P.
PR      10-JUL-2002; 2002US-0394625P.
PR      24-JUL-2002; 2002US-0398008P.
PR      09-AUG-2002; 2002US-0402131P.
PR      13-AUG-2002; 2002US-0402708P.
PR      18-SEP-2002; 2002US-0411355P.
PR      18-SEP-2002; 2002US-0411426P.
PR      02-OCT-2002; 2002US-0414984P.
PR      11-OCT-2002; 2002US-0417611P.
PR      23-OCT-2002; 2002US-0420246P.
PR      05-NOV-2002; 2002US-0423623P.

XX
PA      (HUMA-) HUMAN GENOME SCI INC.
PA      (DEL2) DELTA BIOTECHNOLOGY LTD.
PA      (PRIN-) PRINCIPAL PHARM CORP.
XX
PI      Balance DJ, Turner AJ, Rosen CA, Haseltine WA;
XX
DR      WPI, 2003-598517/56.
XX
PT      New albumin fusion protein, useful for preparing a composition for
PT      treating diabetes mellitus.
XX
PS      Example 4; SEQ ID NO 1236; 24pp; English.
XX
CC      This invention relates to a novel albumin fusion protein having albumin
CC      or biological activity. Human serum albumin is responsible for a
CC      significant proportion of the osmotic pressure of serum and also
CC      functions as a carrier of endogenous and exogenous ligands. The fusion
CC      of albumin to a therapeutic protein may increase shelf-life and stability of
CC      the therapeutic protein. The albumin fusion protein of the invention may
CC      allow production of compositions with antidiabetic activity whilst the
CC      nucleotide sequence which encodes it may be useful for gene therapy. The
CC      albumin fusion protein is useful for preparing a composition for treating
CC      diabetes mellitus. The present sequence is the amino acid sequence of a
CC      novel full-length human albumin therapeutic fusion protein of the
CC      invention. Note: The sequence data for this patent did not form part of
CC      the printed specification, but was obtained in electronic format directly
CC      from WIPO at ftp.wipo.int/pub/publisbedpot_sequences
XX
SQ      Sequence 669 AA;
XX
Query Match      96.2%; Score 3432.5; DB 7; Length 669;
Best Local Similarity 97.0%; Pred. No. 1.1e-281;
Matches 652; Conservative 4; Mismatches 7; Indels 9; Gaps 1;
Qy      3 IFYIFLLSFQGLHTRRGSISLDRHGEFTSDVSSYLEGQAAKEFIAMLVKGRHGE 62
Db      7 ISLFLFSSAVSR-----SLDKRAHBGFTSDVSSYLEGQAAKEFIAMLVKGRHGE 57
Qy      63 GFTSDVSSYLEGQAAKEFIAMLVKGRDAHSEVAHREKDLGEENFKALVLIAPAOYLQ 122
Db      58 GFTSDVSSYLEGQAAKEFIAMLVKGRDAHSEVAHREKDLGEENFKALVLIAPAOYLQ 117
Qy      123 CPFEHVKLVNEVTEPAKTCVADBSAENCDSKSLHTLPFDKLCCTVAITLRETYGEMADCCAK 182
Db      118 CPFEHVKLVNEVTEPAKTCVADBSAENCDSKSLHTLPFDKLCCTVAITLRETYGEMADCCAK 177
Qy      183 QEPERNECTLQHKDNPMLPRLVREPVDMCTAFHNDNEETFLKKYLYEIAHRHFFYAPPE 242
Db      178 QEPERNECTLQHKDNPMLPRLVREPVDMCTAFHNDNEETFLKKYLYEIAHRHFFYAPPE 237
Qy      243 ILFFAKRYKAATECCQAAADRAACLLPKLDELDRDGGKASSAKORLKCSLQKFGERAFA 302
Db      238 ILFFAKRYKAATECCQAAADRAACLLPKLDELDRDGGKASSAKORLKCSLQKFGERAFA 297
```

QY 303 MAAVARSORPPKAEFAVSKLVTDLTQKHTCHGDLLECAADRADLAKYICENODSIS 362
DB 298 MAAVARSORPPKAEFAVSKLVTDLTQKHTCHGDLLECAADRADLAKYICENODSIS 357
QY 363 KKECCCKPLLEKSHCIAVENDEMPADLPISLAADPVESKVCYKNAEAKDVFLGMFLYE 422
DB 358 KKECCCKPLLEKSHCIAVENDEMPADLPISLAADPVESKVCYKNAEAKDVFLGMFLYE 417
QY 423 YARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECYAKVPDEPKLVEBPOLIKONCE 482
DB 418 YARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECYAKVPDEPKLVEBPOLIKONCE 477
QY 483 LFEQLGSEYKRONALVRYTKKVPQVSTPTLVEVSRLGKVGSKCCGHPAKMPKCAEDYL 542
DB 478 LFEQLGSEYKRONALVRYTKKVPQVSTPTLVEVSRLGKVGSKCCGHPAKMPKCAEDYL 537
QY 543 SVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALVEDETYPKEFNAETFTFHADI 602
DB 538 SVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALVEDETYPKEFNAETFTFHADI 597
QY 603 CTISEKERQIKKQTTALVELVGRPKATKEQLKAVMDPFAAFVEKCKADDKETCFABEGK 662
DB 598 CTISEKERQIKKQTTALVELVGRPKATKEQLKAVMDPFAAFVEKCKADDKETCFABEGK 657
QY 663 KLVAAASQALGL 674
DB 658 KLVAAASQALGL 669

RESULT 14

ID ADF16148 standard; protein; 669 AA.
AC ADF16148;

DT 12-FEB-2004 (first entry)

DE Human albumin therapeutic fusion protein Segid1235.

KM albumin fusion protein; albumin activity; human serum albumin;
KW serum osmotic pressure; shelf-life; stability; antidiabetic;
KW gene therapy; diabetes mellitus; human.

OS Chimeric.
OS Homo sapiens.

PN MO2003060071-A2.

XX 24-JUL-2003.

PF 23-DEC-2002; 2002MO-US040891.

XX 21-DEC-2001; 2001US-0341811P.

PR 24-JAN-2002; 2002US-0350358P.

PR 28-JAN-2002; 2002US-0351360P.

PR 26-FEB-2002; 2002US-0359370P.

PR 28-FEB-2002; 2002US-0360000P.

PR 27-MAR-2002; 2002US-0370270P.

PR 08-APR-2002; 2002US-0370270P.

PR 10-MAY-2002; 2002US-0378950P.

PR 24-MAY-2002; 2002US-0382617P.

PR 28-MAY-2002; 2002US-0383123P.

PR 05-JUN-2002; 2002US-0394625P.

PR 10-JUL-2002; 2002US-0394625P.

PR 24-JUL-2002; 2002US-0398008P.

PR 09-AUG-2002; 2002US-0402131P.

XX (HUMA-) HUMAN GENOME SCI INC.
PA (DELT) DELTA BIOTECHNOLOGY LTD.
PA (PRIN-) PRINCIPIA PHARM CORP.
PI Balance DJ, Turner AJ, Rosen CA, Haseltine WA,
DR WPI, 2003-598517/56.
XX New albumin fusion protein, useful for preparing a composition for
PT creating diabetes mellitus.
XX
XX Example 4; SEQ ID NO 1235; 24pp; English.
PS This invention relates to a novel albumin fusion protein having albumin
CC or biological activity. Human serum albumin is responsible for a
CC significant proportion of the osmotic pressure of serum and also
CC functions as a carrier of endogenous and exogenous ligands. The fusion of
CC albumin to a therapeutic protein may increase shelf-life and stability of
CC the therapeutic protein. The albumin fusion protein of the invention may
CC allow production of compositions with antidiabetic activity whilst the
CC nucleotide sequence which encodes it may be useful for gene therapy. The
CC albumin fusion protein is useful for preparing a composition for treating
CC diabetes mellitus. The present sequence is the amino acid sequence of a
CC novel full-length human albumin therapeutic fusion protein of the
CC invention. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from WIPD at ftp.wipo.int/pub/publishedpct_sequences
XX

Sequence 669 AA;

Query Match 96.2%; Score 3432.5; DB 7; Length 669;
Best Local Similarity 97.0%; Pred. No. 1,le-281;

Matches 652; Conservative 4; Mismatches 7; Indels 9; Gaps 1;

QY 3 IFYIFLLFVQGLHHTRRGSLDKRGEGFTSDVSSYLGQAKEFIAMLVKGRHGE 62
DB 7 ISLFLFSSAYSRR-----SLDKRHSEGFSTSDVSSYLGQAKEFIAMLVKGRHAB 57
QY 63 GFTSDVSSYLGQAKEFIAMLVKGRDANKSEVAFRFDLGEENFKALVIAFAQYLOO 122
DB 58 GFTSDVSSYLGQAKEFIAMLVKGRDANKSEVAFRFDLGEENFKALVIAFAQYLOO 117
QY 123 CPEDHVKLVNTEYETPAKTCVADSEANCDKSLHTLFGDKLCTVATRLRETYGEMADCCAK 182
DB 118 CPEDHVKLVNTEYETPAKTCVADSEANCDKSLHTLFGDKLCTVATRLRETYGEMADCCAK 177
QY 183 QEPERNECFLOHNDPNLPRLVREPDVDMCTAFHNDNEFTLKKYLYIARRHPYFAYE 242
DB 178 QEPERNECFLOHNDPNLPRLVREPDVDMCTAFHNDNEFTLKKYLYIARRHPYFAYE 237
QY 243 LFFAKRYKAAFTCCGAADKAAACLLPKLDELARDEKASASQORLKCAISLOKFGGEAFPA 302
DB 238 LFFAKRYKAAFTCCGAADKAAACLLPKLDELARDEKASASQORLKCAISLOKFGGEAFPA 297
QY 303 MAAVARSORPPKAEFAVSKLVTDLTQKHTCHGDLLECAADRADLAKYICENODSIS 362
DB 298 MAAVARSORPPKAEFAVSKLVTDLTQKHTCHGDLLECAADRADLAKYICENODSIS 357
QY 363 KKECCCKPLLEKSHCIAVENDEMPADLPISLAADPVESKVCYKNAEAKDVFLGMFLYE 422
DB 358 KKECCCKPLLEKSHCIAVENDEMPADLPISLAADPVESKVCYKNAEAKDVFLGMFLYE 417
QY 423 YARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECYAKVPDEPKLVEBPOLIKONCE 482
DB 418 YARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECYAKVPDEPKLVEBPOLIKONCE 477
QY 483 LFEQLGSEYKRONALVRYTKKVPQVSTPTLVEVSRLGKVGSKCCGHPAKMPKCAEDYL 542
DB 478 LFEQLGSEYKRONALVRYTKKVPQVSTPTLVEVSRLGKVGSKCCGHPAKMPKCAEDYL 537
QY 543 SVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALVEDETYPKEFNAETFTFHADI 602

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OM protein - protein search, using sw model

Run on: April 19, 2006, 12:02:52 ; Search time 30.6364 Seconds
(without alignment)
2116.769 Million cell updates/sec

Title: US-10-775-180-447

Perfect score: 3568

Sequence: 1 NMIFPIFLFLSFVQGLEHT.....TCFAEKGKLVAAQAALGL 674

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-Processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : PIR 80:*

1: p1r1:*

2: p1r2:*

3: p1r3:*

4: p1r4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	3108	87.1	609	1 ABHUS	serum albumin prec
2	2947	82.6	600	2 A47391	serum albumin prec
3	2627	73.6	608	2 S57632	serum albumin prec
4	2481.5	69.5	607	1 ABHOS	serum albumin prec
5	2451.5	68.7	607	1 ABHOS	serum albumin prec
6	2437.5	68.3	607	1 ABHOS	serum albumin prec
7	2431	68.1	608	1 ABHOS	serum albumin prec
8	2416.5	67.7	605	1 ABHOS	serum albumin prec
9	2387.5	66.2	609	2 JCS938	serum albumin prec
10	1861	52.2	453	2 A05139	serum albumin - mo
11	1562	43.8	615	1 ABCBS	serum albumin prec
12	1260.5	35.3	609	2 JCS938	serum albumin prec
13	1256.5	35.2	609	2 JCS938	serum albumin prec
14	1249.5	35.0	609	2 JCS938	serum albumin prec
15	1207.5	33.8	609	2 JCS938	serum albumin prec
16	1181.5	33.1	609	2 JCS938	serum albumin prec
17	1175.5	32.9	608	1 ABHUS	serum albumin prec
18	1084	30.4	605	1 ABHUS	serum albumin prec
19	1067	29.9	611	1 ABHUS	serum albumin prec
20	1055	29.6	599	1 A54906	serum albumin prec
21	932.5	26.1	608	2 A53195	serum albumin prec
22	930	26.1	614	2 A53195	serum albumin prec
23	751.5	21.1	608	1 ABHUS	serum albumin prec
24	746.5	20.9	608	1 ABHUS	serum albumin prec
25	699	19.6	382	2 A37253	serum albumin 2 pr
26	440.5	12.3	1423	1 S27941	serum albumin - bu
27	401	11.2	474	1 VYHND	serum albumin - se
28	400	11.2	475	1 VYHND	serum albumin - se
29	387	10.8	472	1 A35327	vitamin D-binding vitamin D-binding

30	247.5	6.9	180	1 GCBO	glucagon precursor
31	245.5	6.9	180	2 A57294	glucagon precursor
32	243.5	6.8	180	1 GCRT	glucagon precursor
33	243.5	6.8	180	1 GCRT	glucagon precursor
34	241.5	6.8	180	1 GCRT	glucagon precursor
35	240.5	6.7	180	1 GCRT	glucagon precursor
36	238.5	6.7	158	1 GCRT	glucagon precursor
37	230.5	6.5	180	1 GCRT	glucagon precursor
38	226.5	6.3	156	2 GCRT	glucagon precursor
39	225.5	6.3	151	1 GCRT	glucagon precursor
40	215.5	6.0	178	2 GCRT	glucagon precursor
41	209	5.9	101	1 GCRT	glucagon precursor
42	207.5	5.8	178	2 GCRT	glucagon precursor
43	200.5	5.6	122	1 GCRT	glucagon precursor
44	188.5	5.3	63	1 GCRT	glucagon precursor
45	188	5.3	72	1 GCRT	glucagon precursor

ALIGNMENTS

RESULT 1

ABHUS
serum albumin precursor [validated] - human
N:Alternate names: preproalbumin
N:Contains: Kinetensin
C:Species: Homo sapiens (man)
C:Date: 29-Jul-1981 #sequence revision 31-Jan-1997 #ext change 09-Jun-2004
C:Accession: A93743; A93936; I39427; I59286; I59313; G01747; S55314; A91420; S06422; S36
R:Law, R.M.; Adelman, J.; Bock, S.C.; Franke, A.E.; Houck, C.M.; Najarian, R.C.; Seebur
Nucleic Acids Res. 9, 6103-6114, 1981
A:Title: The sequence of human serum albumin cDNA and its expression in Escherichia coli
A:Reference number: A93743; PMID:82081882; PMID:6171778
A:Accession: A93743
A:Molecule type: mRNA
A:Residues: 1-419, 'K', 421-609 <LAW>
A:Cross-references: UNIPARC:UPI000002CE3A; EMBL:V00495; GB:J00078; GB:J0
R:Drano, Y.; Watanabe, K.; Sakai, M.; Tamaoki, T.
J. Biol. Chem. 261, 3244-3251, 1986
Proc. Natl. Acad. Sci. U.S.A. 79, 71-75, 1982
A:Title: Nucleotide sequence and the encoded amino acids of human serum albumin mRNA.
A:Reference number: A93936; PMID:82105994; PMID:6273591
A:Accession: A93936
A:Molecule type: mRNA
A:Residues: 1-120, 'G', 122-609 <DUG>
A:Cross-references: UNIPARC:UPI0000156B8; EMBL:V00494; NID:G28589; PIDN:CAA23753.1; P1
J. Biol. Chem. 261, 3244-3251, 1986
A:Title: The human albumin gene. Characterization of the 5' and 3' flanking regions and
A:Reference number: I39427; PMID:86140099; PMID:2419329
A:Accession: I39427
A:Status: translation not shown
A:Molecule type: DNA
A:Residues: 1-26 <URA>
A:Cross-references: UNIPARC:UPI000002BD5F; GB:M13075; NID:G178330; PIDN:AA51688.1; PID
R:Watkins, S.; Madison, J.; Galliano, M.; Minichioiti, L.; Putnam, F.W.
Proc. Natl. Acad. Sci. U.S.A. 91, 2275-2279, 1994
A:Title: A nucleotide insertion and frameshift cause analbuminemia in an Italian family
A:Reference number: I59286; PMID:94181575; PMID:8134387
A:Accession: I59286
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 282-290, 'KSRPDCQ', <MAT>
A:Cross-references: UNIPARC:UPI000011F7AF; GB:S69192; NID:G546032; PIDN:AA30282.1; PID
A:Note: this frame-shift variant, designated albumin Roma, leads to analbuminemia
R:Madison, J.; Galliano, M.; Watkins, S.; Minichioiti, L.; Porta, F.; Rossi, A.; Putnam,
Proc. Natl. Acad. Sci. U.S.A. 91, 6476-6480, 1994
A:Title: Genetic variants of human serum albumin in Italy: point mutants and a carboxyl
A:Reference number: I59313; PMID:94294404; PMID:8022807
A:Accession: I59313
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 589-590, 'ALPRRVNLLLOVKLP', <MAD>
A:Cross-references: UNIPARC:UPI0000072EC4; GB:S70799; NID:G547231; PIDN:AA31177.1; PID

A>Note: this frame-shift variant is designated albumin Bazzano; four additional variants
 R.Menaya, J.; Parrilla, R.; Ayuso, M.S.
 submitted to the EMBL Data Library, March 1995
 A:Reference number: G08292
 A:Accession: G01747
 A:Status: translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-120,'G',122-455 <MEN>
 A:Cross-references: UNIPARC:UPI000016A1A8; EMBL:U22961; NID:9763428; PIDN:AAA64922.1; PI
 R.Liederswood, E.C.; George, P.M.; Peach, R.J.; Brennan, S.O.
 Biochem. J. 308, 321-325, 1995
 A:Title: Endoproteolytic processing of recombinant proalbumin variants by the yeast *Kex2*
 A:Reference number: S55314; MWID:95275251; PMID:7755581
 A:Accession: S55314
 A:Molecule type: protein
 A:Residues: 19-27 <LED>
 A:Cross-references: UNIPARC:UPI00001743FA
 R.Meloun, B.; Moravsek, L.; Kostka, V.
 FEBS Lett. 58, 134-137, 1975
 A:Title: Complete amino acid sequence of human serum albumin.
 A:Reference number: A91420; MWID:76187907; PMID:1225573
 A:Accession: A91420
 A:Molecule type: protein
 A:Residues: 25-117,'EQ',120-154,'Q',156-193,'E',195-387,'H',389-390,'Y',392-393,'A',395-
 A:Cross-references: UNIPARC:UPI00001743FB
 R.Roehr, U.; Spittler, G.; Tripler, D.
 Justus Liebig's Ann. Chem. 9, 881-884, 1988
 A:Title: Isolation and structure elucidation of middle-molecular weight peptides from ur
 A:Reference number: S06422
 A>Note: this paper is in German, with an English abstract
 A:Accession: S06422
 A:Molecule type: protein
 A:Residues: 25-48 <ROE>
 A:Cross-references: UNIPARC:UPI000052CDA
 R.Finch, J.W.; Crouch, R.K.; Knapp, D.R.; Schey, K.L.
 Arch. Biochem. Biophys. 305, 595-599, 1993
 A:Title: Mass spectrometric identification of modifications to human serum albumin treat
 A:Reference number: S36882; MWID:93384321; PMID:8373198
 A:Accession: S36882
 A:Molecule type: protein
 A:Residues: 45-67,141-160,311-337,469-490,570-581 <FIN>
 A:Cross-references: UNIPARC:UPI00000423AC; UNIPARC:UPI00001743FC; UNIPARC:UPI00001743FD;
 R.Kaehler, E.; Spittler, G.
 Biol. Chem. Hoppe-Seyler 372, 849-855, 1991
 A:Title: Bruchstuecke aus Albumin und beta(2)-Mikroglobulin - Bestandteile der Mitteilun
 A:Reference number: S17599; MWID:92126241; PMID:1772598
 A:Accession: S17599
 A:Molecule type: protein
 A:Residues: 25-54;354-357,431-447 <KAU>
 A:Cross-references: UNIPARC:UPI0000174400; UNIPARC:UPI0000174401; UNIPARC:UPI0000174402
 A>Note: 49-Leu was also found
 R.Carraway, R.E.; Cochran, D.E.; Boucher, W.; Mitera, S.P.
 J. Immunol. 143, 1680-1684, 1989
 A:Title: Structures of histamine-releasing peptides formed by the action of acid proteas
 A:Reference number: A45800; MWID:89341406; PMID:2474609
 A:Accession: A45800
 A:Molecule type: protein
 A:Residues: 166-173 <CR>
 A:Cross-references: UNIPARC:UPI000004A560
 R.Mogard, M.H.; Kobayashi, R.; Chen, C.F.; Lee, T.D.; Reeve Jr., J.R.; Shively, J.E.; Wa
 Biochem. Biophys. Res. Commun. 136, 983-988, 1986
 A:Title: The amino acid sequence of kinstensin, a novel peptide isolated from pepsin-lys
 A:Reference number: A03239; MWID:86242180; PMID:3087352
 A:Accession: A03239
 A:Molecule type: protein
 A:Residues: 166-173,'L' <MOG>
 A:Cross-references: UNIPARC:UPI00000351D2
 R.Galliano, M.; Minichotti, L.; Porta, F.; Rossi, A.; Ferri, G.; Madison, J.; Watkins, S
 Proc. Natl. Acad. Sci. U.S.A. 87, 8721-8725, 1990
 A:Title: Mutations in genetic variants of human serum albumin found in Italy.
 A:Reference number: A38255; MWID:91062352; PMID:2247440
 A:Accession: C38255
 A:Molecule type: protein

A:Residues: 76-111 <GAL1>
 A:Cross-references: UNIPARC:UPI0000174403
 A:Accession: B38255
 A:Molecule type: protein
 A:Residues: 82-105,'K',107-110 <GAL2>
 A:Cross-references: UNIPARC:UPI0000174403
 A>Note: this variant is designated albumin Vilbo Valentia
 A:Accession: A38255
 A:Molecule type: protein
 A:Residues: 76-83,'K',85-106 <GAL3>
 A:Cross-references: UNIPARC:UPI0000174405
 A>Note: this variant is designated albumin Torino
 R.Minichotti, L.; Galliano, M.; Zapponi, M.C.; Ferri, R.
 Eur. J. Biochem. 214, 437-444, 1993
 A:Title: The structural characterization and bilirubin-binding properties of albumin Her
 A:Reference number: S33298; MWID:93292504; PMID:8513793
 A:Accession: S33298
 A:Molecule type: protein
 A:Residues: 235-263,'E',265-281 <MIN1>
 A:Cross-references: UNIPARC:UPI0000174406
 A>Note: this variant is designated albumin Herborn
 R.Minichotti, L.; Galliano, M.; Stoppini, M.; Ferri, G.; Crespeau, H.; Rochu, D.; Porta,
 Biochem. Biophys. Acta 1119, 232-238, 1992
 A:Title: Two albumins with identical electrophoretic mobility are produced by differ
 A:Reference number: S21078; MWID:92190239; PMID:1347703
 A:Accession: S21078
 A:Molecule type: protein
 A:Residues: 354-356,'K',358-378 <MIN2>
 A:Cross-references: UNIPARC:UPI0000174407
 A>Note: this variant is designated albumin Sondrio; another variant Paris-2 is reported,
 R.Ihe, X.M.; Carter, D.C.
 Nature 358, 209-215, 1992
 A:Title: Atomic structure and chemistry of human serum albumin.
 A:Reference number: A46756; MWID:92334427; PMID:1630489
 A:Contents: annotation; X-ray crystallography, 2.8 angstroms
 R.Brown, J.R.; Shockley, P.; Behrens, P.O.
 In The Chemistry and Physiology of the Human Plasma Proteins, Bing, D.H., ed., pp.23-40,
 A:Reference number: A94442
 A:Contents: annotation; three-dimensional structure and disulfide bonds
 R.Saber, M.A.; Stockbauer, P.; Moravsek, L.; Meloun, B.
 Collect. Czech. Chem. Commun. 42, 564-579, 1977
 A:Title: Disulfide bonds in human serum albumin.
 A:Reference number: A90930
 A:Contents: annotation; disulfide bonds
 R.Jacobsen, C.
 Biochem. J. 171, 453-459, 1978
 A:Title: Lysine residue 240 of human serum albumin is involved in high-affinity binding
 A:Reference number: A90299; MWID:78186630; PMID:656055
 A:Contents: annotation; bilirubin-binding site
 R.Peters, T.; Reed, R.G.
 In Albumin: Structure, Biosynthesis, Function, Peters, J., and Sjolholm, I., eds., 11-20,
 A:Title: Serum albumin: conformation and active sites.
 A:Reference number: A94408
 A:Contents: annotation; binding sites
 R.Harper, M.E.; Dugaiczyk, A.
 Am. J. Hum. Genet. 35, 565-572, 1983
 A:Title: Linkage of the evolutionarily-related serum albumin and alpha-fetoprotein genes
 A:Reference number: A90028; MWID:83379982; PMID:6192711
 A:Contents: annotation; gene position
 R.Walker, J.E.
 FEBS Lett. 66, 173-175, 1976
 A:Title: Lysine residue 199 of human serum albumin is modified by acetylserine
 A:Reference number: A46755; MWID:76257808; PMID:955075
 A:Contents: annotation
 A>Note: the nonenzymatic transfer of an acetyl group from aspirin (acetylsalicylic acid
 R.Bohney, J.P.; Fonda, M.L.; Feldhoff, R.C.
 FEBS Lett. 298, 266-268, 1992
 A:Title: Identification of Lys(190) as the primary binding site for pyridoxal 5'-phospha
 A:Reference number: A56294; MWID:92183981; PMID:1544460
 A:Contents: annotation
 A>Note: the nonenzymatic binding of pyridoxal phosphate to lysine-214 is described; in p
 A:Accession: C38255
 C:Comment: Serum albumin, a predominant protein in the plasma of adults, is synthesized

l1nubin, protoporphyrin, long-chain fatty acids, prostaglandins, steroid hormones (weak C:Comment: A large number of variants of human serum albumin have been described.

C:Genetics:

A:Gene: ALB

A:Cross-references: GDB:118990; OMIM:103600

A:Map position: 4q11-4q13

Query Match 87.1%; Score 3108; DB 1; Length 609;
Best Local Similarity 100.0%; Pred. No. 5.1e-197; Indels 0; Gaps 0;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 89 RDAHSEVAHREFDGLGEENFKALVLIAPAYILOQCPEDHVKLVNVEYFAKTCVADESA 148
DB 24 RDHSEVAHREFDGLGEENFKALVLIAPAYILOQCPEDHVKLVNVEYFAKTCVADESA 83
QY 149 ENCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKQPERNECFLOHKDNPMLPLVYRPE 208
DB 84 ENCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKQPERNECFLOHKDNPMLPLVYRPE 143
QY 209 VDVWCTAFHNDNETFLKTYIETARHPFYAPBELLFPAKRYKAAFTCCQADKAAACLL 268
DB 144 VDVWCTAFHNDNETFLKTYIETARHPFYAPBELLFPAKRYKAAFTCCQADKAAACLL 203
QY 269 PKLDELREDEGKASSAKORLKCSLOKGERAFKAMAVARLSORFPKAEFAVSKLYTDLT 328
DB 204 PKLDELREDEGKASSAKORLKCSLOKGERAFKAMAVARLSORFPKAEFAVSKLYTDLT 263
QY 329 KYHTBCCHGDLLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAVENDEMP 388
DB 264 KYHTBCCHGDLLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAVENDEMP 323
QY 389 ADLPSLAADVESKDVCKNYAEKADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 448
DB 324 ADLPSLAADVESKDVCKNYAEKADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 383
QY 449 CCAADPHCEYAKVFDEFPKLVVEEPONLIKONCELFEOUGEYKFNALLVRYTKKYPQVS 508
DB 384 CCAADPHCEYAKVFDEFPKLVVEEPONLIKONCELFEOUGEYKFNALLVRYTKKYPQVS 443
QY 509 TPTLVEVSRLNGKVGSKCKKHPKAMPKCAEDYLSVVLNOLCVLHEKTPVSDRYTKCTE 568
DB 444 TPTLVEVSRLNGKVGSKCKKHPKAMPKCAEDYLSVVLNOLCVLHEKTPVSDRYTKCTE 503
QY 569 SLVNRPPCSALFVDETYVPKEFNATFTFHADICTISEKEROIKQTALVELVKHPKA 628
DB 504 SLVNRPPCSALFVDETYVPKEFNATFTFHADICTISEKEROIKQTALVELVKHPKA 563
QY 629 TKEQLRKAVMDPFAAFVEKCKKADKETCPAEBGKKLVAAASQALGL 674
DB 564 TKEQLRKAVMDPFAAFVEKCKKADKETCPAEBGKKLVAAASQALGL 609

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RESULT 2

serum albumin precursor - rhesus macaque

C:Species: Macaca mulatta (rhesus macaque)

C>Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004

C:Accession: A47391

R:Watkins, S.; Sakamoto, Y.; Medison, J.; Davis, B.; Smith, D.G.; Dwyer, J.; Putnam, F.

Proc. Natl. Acad. Sci. U.S.A. 90, 2409-2413, 1993

A:Title: cDNA and protein sequence of polymorphic macaque albumins that differ in biliary

A:Reference number: A47391; MUID:93211974; PMID:8460152

A:Contents: B/B homozygote

A:Accession: A47391

A:Status: preliminary

A:Molecule type: mRNA; protein

A:Residues: 1-600 <MUT>

A:Cross-references: UNIPROT:Q28522; UNIPARC:UPI00001257C4; GB:M90463; NID:9342294; PIDN:

A:Experimental source: liver

A:Note: sequence extracted from NCBI backbone (NCBIN:128280, NCBI:128281)

C:Superfamily: serum albumin; serum albumin repeat homology <SA1>

F:21-194/Domain: serum albumin repeat homology <SA1>

F:213-386/Domain: serum albumin repeat homology <SA2>

F:405-584/Domain: serum albumin repeat homology <SA3>

Query Match 82.6%; Score 2947; DB 2; Length 609;

Best Local Similarity 93.5%; Pred. No. 2e-186;

Matches 546; Conservative 23; Mismatches 15; Indels 0; Gaps 0;

```

QY 89 RDAHSEVAHREFDGLGEENFKALVLIAPAYILOQCPEDHVKLVNVEYFAKTCVADESA 148
DB 16 RDHSEVAHREFDGLGEENFKALVLIAPAYILOQCPEDHVKLVNVEYFAKTCVADESA 75
QY 149 ENCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKQPERNECFLOHKDNPMLPLVYRPE 208
DB 76 ENCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKQPERNECFLOHKDNPMLPLVYRPE 135
QY 209 VDVWCTAFHNDNETFLKTYIETARHPFYAPBELLFPAKRYKAAFTCCQADKAAACLL 268
DB 136 VDVWCTAFHNDNETFLKTYIETARHPFYAPBELLFPAKRYKAAFTCCQADKAAACLL 195
QY 269 PKLDELREDEGKASSAKORLKCSLOKGERAFKAMAVARLSORFPKAEFAVSKLYTDLT 328
DB 196 PKLDELREDEGKASSAKORLKCSLOKGERAFKAMAVARLSORFPKAEFAVSKLYTDLT 255
QY 329 KYHTBCCHGDLLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAVENDEMP 388
DB 256 KYHTBCCHGDLLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAVENDEMP 315
QY 389 ADLPSLAADVESKDVCKNYAEKADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 448
DB 316 ADLPSLAADVESKDVCKNYAEKADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 375
QY 449 CCAADPHCEYAKVFDEFPKLVVEEPONLIKONCELFEOUGEYKFNALLVRYTKKYPQVS 508
DB 376 CCAADPHCEYAKVFDEFPKLVVEEPONLIKONCELFEOUGEYKFNALLVRYTKKYPQVS 435
QY 509 TPTLVEVSRLNGKVGSKCKKHPKAMPKCAEDYLSVVLNOLCVLHEKTPVSDRYTKCTE 568
DB 436 TPTLVEVSRLNGKVGSKCKKHPKAMPKCAEDYLSVVLNOLCVLHEKTPVSDRYTKCTE 495
QY 569 SLVNRPPCSALFVDETYVPKEFNATFTFHADICTISEKEROIKQTALVELVKHPKA 628
DB 496 SLVNRPPCSALFVDETYVPKEFNATFTFHADICTISEKEROIKQTALVELVKHPKA 555
QY 629 TKEQLRKAVMDPFAAFVEKCKKADKETCPAEBGKKLVAAASQALGL 672
DB 556 TKEQLRKAVMDPFAAFVEKCKKADKETCPAEBGKKLVAAASQALGL 599

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RESULT 3

serum albumin precursor - cat

C:Species: Felis silvestris catus (domestic cat)

C>Date: 19-Oct-1995 #sequence_revision 03-Nov-1995 #text_change 09-Jul-2004

C:Accession: J04660; S57632

R:Hilger, C.; Grigoriou, F.; Hentges, F.

Gene 169, 295-296, 1996

A:Title: Sequence of the gene encoding cat (Felis domesticus) serum albumin.

A:Reference number: J04660; MUID:96194824; PMID:8647469

A:Accession: J04660

A:Molecule type: mRNA

A:Residues: 1-608 <H12>

A:Cross-references: UNIPROT:P49064; UNIPARC:UPI00001257C2; EMBL:X84842; NID:9886484; PIR

A:Experimental source: liver

C:Comment: This protein is the major protein component in plasma. It functions as a mul-

C:Superfamily: serum albumin; serum albumin repeat homology

C:Keywords: liver; plasma

F:1-18/Domain: signal sequence #status predicted <SIG>

F:13-24/Domain: propeptide #status predicted <PRP>

F:25-608/Product: serum albumin #status predicted <MUT>

F:23-202/Domain: serum albumin repeat homology <SA1>

F:231-394/Domain: serum albumin repeat homology <SA2>

F:413-592/Domain: serum albumin repeat homology <SA3>

Query Match 73.6%; Score 2627; DB 2; Length 608;
Beet Local Similarity 80.1%; Pred. No. 2,4e-165;
Matches 483; Conservative 53; Mismatches 57; Indels 10; Gaps 1;

DY SSYLEGQAAKERIAMLVKGRDAHKSEVAFRFDDLGEEFNKKALVTLAFAQYLQQCFPEFHV 129
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 15 SAYISG-----VTRREHNGSEIARRFDLGEHFRLGLVLVAFOYLQOCFPEFHV 64

DY KLNVNTEVFATKVADDESANENCKSLHTLFGBDKLTVALTBETYGEMADCCAKOEPERNE 189
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 65 KLVNTEVFAPKGVADQSAAANCEKSIHELIDGDKLTVASLNDRKGEMADCCAKEPERNE 124

DY CFLQHKNDPNLPLRVLPREVDMCTAFFDNETFTLKTLTLYEARHPFYAPPELLFPFKR 249
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 125 CFLQHKNDPNPGFGQLVTPEBADAMCTAFHENBORFVGKTYELARHRPFYAPBELLVAAE 184

DY YKAATEECGGAADKAACLLPKLDELNRDEGKASAKORLKCAISLOKFGERAFKANAVALTS 309
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 185 YKGFVECECBADKAACLTPKVDALEREKVLASSABRKCSLSLOKFGERAFKANSVARLS 244

DY QRPPRAFEAVSKLVTDLTKVTECCGHDLLECADDRADLAKYLICENODSISSKLKECEE 369
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 245 QKPRAEFPAEISKLVTDLAKIHKECGHDLEECADRADLAKYLICENODSISTKLKECCG 304

DY 370 KPFLKSHCIAEVENDERPADIPLSLAADPVBSKDVKCYNYABAQDYFLCMFLYTEARRHP 429
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 305 KPFLKESHCI SEVERDELPADLPPLAVDFVEDKEVCNKYOAEKDFLGTPLYESRRHEP 364

DY YSVVLLTLAKYENTLETGCCAADPHRCYAKVPPEFPPIVEBPONILKONCELPEOLGE 489
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 365 YSVSLTLRIAKGYEATLEKCCTADP PACYAIVFPEFPPLVEBNLVKTNCBLPEKIGE 424

DY 490 YKFNALLVRYYTKKYPPOVSTPLTVESVNLIKGVSGCKCKGHEAKMPCAEDYL SVVLNQ 549
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 425 YGFQNALLVRYYTKKYPOVSTPLTVESVSLSIGVSGCKCTTHPEARELS CAEDYLS VLVNRL 484

DY 550 CYLHEKTPVSDRYATKCTESBVNNRP CFSAL EVDETY PKENNAFTPTFHADICTLSKE 609
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 485 CYLHEKTPVSEKRTCCTESBVNNRRPCFSALOVDETYPVKFSATPTTFHADICTLPEAE 544

DY 610 ROIKQTOTLVELYEHKPKPATKEQLKAVMDFFA PFEXCKXAD DKTCGAEBGKULVNASQ 669
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
DB 545 KOIKQOSALVELKHKPRATBEQLKTMGD FGSFVDCACBAEDKACP AEBSGPLVAAAQ 604

DY 670 AAL 672
|| ||
DB 605 AAL 607

RESULT 4
ABIOS
serum albumin precursor - horse
C:Species: Equus caballus (domestic horse)
C:Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004
C:Accession: S34053
J.Ho, J.X.; Holowachuk, B.W.; Norton, E.J.; Twigg, P.D.; Carter, D.C.
Eur. J. Biochem. 215, 205-212, 1993
AltTitle: X-ray and primary structure of horse serum albumin (Equus caballus) at 0.27-nm
A:Reference number: S34053; PMID:93345495; PMID:8344282
A:Accession: S34053
A:Molecule type: mRNA
A:Residues: 1-607 <HO>
A:Cross-references: UNIPROT:P35747; UNIPARC:UPI00001257C3; GB:X74045; NID:G399671; PIDN:
C:Comment: Serum albumin is synthesized in the liver as preproalbumin. It binds copper,
teroid hormones (weak bonds with these hormones promote their transfer across the membrane
C:Superfamily: serum albumin; serum albumin repeat homology
C:Keywords: carrier protein; duplication; metal binding; plasma
F.1-18/Domains: signal sequence #status predicted <SIG>
F.19-24/Product: serine protease #status predicted <PRO>
F.25-607/Product: serum albumin #status predicted <MAT>
F.29-201/Domains: serum albumin repeat homology <SA1>
F.220-393/Domains: serum albumin repeat homology <SA2>
F.412-591/Domains: serum albumin repeat homology <SA3>

[illegible]

A:Molecule type: protein
 A:Residues: 25-41,'H','43-189','E','191-213','T','215-323','D','325-393','TS','396-607' <HR>
 A:Cross-references: UNIPARC:UPI0000174409
 R:MacGillivray, R.T.A.; Chung, D.W.; Davle, E.W.
 Eur. J. Biochem. 98, 477-485, 1979
 A:Title: Biosynthesis of bovine plasma proteins in a cell-free system.
 A:Reference number: A91258; MUID:80024278; PMID:488109
 A:Accession: A91258
 A:Molecule type: protein
 A:Residues: 1-32 <MAG>
 A:Cross-references: UNIPARC:UPI000017440A
 R:Heleh, J.C.; Lin, F.P.; Tam, M.F.
 Anal. Biochem. 170, 1-8, 1988
 A:Title: Electrophoretic onto glass-fiber filter from an analytical isoelectrofocusing gel
 A:Reference number: A60808; MUID:88267456; PMID:3389500
 A:Accession: B60808
 A:Molecule type: protein
 A:Residues: 25-41 <HR1>
 A:Cross-references: UNIPARC:UPI000017440B
 R:Strawich, E.; Glincher, M.J.
 Eur. J. Biochem. 191, 47-56, 1990
 A:Title: Tooth 'enamelins' identified mainly as serum proteins. Major 'enamelin' is albumin
 A:Reference number: S10780; MUID:90336641; PMID:2379503
 A:Accession: S10780
 A:Molecule type: protein
 A:Residues: 25-41,'H','43-57','59-64' <STR>
 A:Cross-references: UNIPARC:UPI000017440C
 R:Carraway, R.E.; Cochran, D.E.; Boucher, W.; Mitra, S.P.
 J. Immunol. 143, 1680-1684, 1989
 A:Title: Structures of histamine-releasing peptides formed by the action of acid proteases
 A:Reference number: A45800; MUID:89341406; PMID:2474609
 A:Accession: D45800
 A:Molecule type: protein
 A:Residues: 163-172 <CAR>
 A:Cross-references: UNIPARC:UPI000017440D
 R:Carraway, R.E.; Mitra, S.P.; Cochran, D.E.
 J. Biol. Chem. 262, 5968-5973, 1987
 A:Title: Structure of a biologically active neurotensin-related peptide obtained from pig
 A:Reference number: A26693; MUID:87194805; PMID:2437111
 A:Accession: A26693
 A:Molecule type: protein
 A:Residues: 165-172,'L','<CA2>
 A:Cross-references: UNIPARC:UPI00000351D2
 R:Reed, R.G.; Putnam, F.W.; Peters Jr., T.
 Biochem. J. 191, 867-868, 1980
 A:Title: Sequence of residues 400-403 of bovine serum albumin.
 A:Reference number: A90309; MUID:82023364; PMID:7283978
 A:Accession: A90309
 A:Molecule type: protein
 A:Residues: 402-433 <REB>
 A:Cross-references: UNIPARC:UPI000017440E
 R:Brown, J.R.
 Fed. Proc. 34, 591, 1975
 A:Title: Structure of bovine serum albumin.
 A:Reference number: A91458
 A:Accession: A91458
 A:Molecule type: protein
 A:Residues: 25-41,'H','43-117','EQ','120-179','181-189','E','191-194','A','196-213','T','215-288','E'
 A:Cross-references: UNIPARC:UPI000017440F; UNIPARC:UPI0000174410
 R:Brown, J.R.
 Submitted to the Atlas, April 1975
 A:Reference number: A94551
 A:Accession: A94551
 A:Molecule type: protein
 A:Residues: 190-195 <BR2>
 A:Cross-references: UNIPARC:UPI0000174411
 R:Brown, J.R.
 Fed. Proc. 33, 1389, 1974
 A:Reference number: A91457
 A:Contents: annotation; disulfide bonds
 R:Werlen, R.C.; Offord, R.E.; Rose, K.
 Biochem. J. 302, 907-911, 1994
 A:Title: Preparation and characterization of novel substrates of insulin proteinase (EC

A:Reference number: S55232; MUID:95031935; PMID:7945219
 A:Accession: S55232
 A:Status: preliminary
 A:Molecule type: protein
 A:Residues: 529-536;569-572 <MER>
 A:Cross-references: UNIPARC:UPI0000174412; UNIPARC:UPI0000174413
 C:Superfamily: serum albumin; serum albumin repeat homology
 C:Keywords: carrier protein; copper binding; duplication; plasma
 F:1-18/Domain: signal sequence #status experimental <PRO>
 F:19-24/Domain: propeptide #status experimental <PRO>
 F:25-607/Product: serum albumin #status experimental <MPT>
 F:220-201/Domain: serum albumin repeat homology <SA1>
 F:220-393/Domain: serum albumin repeat homology <SA2>
 F:412-591/Domain: serum albumin repeat homology <SA3>
 F:27/Binding site: copper (His) #status predicted
 F:77-86,99-115,114-125,147-192,191-200,223-269,266-276,288-302,301-312,339-384,383-392,4

Query Match 68.7%; Score 2451.5; DB 1; Length 607;
 Best Local Similarity 75.7%; Pred. No. 8,4e-154;
 Matches 442; Conservative 71; Mismatches 70; Indels 1; Gaps 1;

QY	89	RDHKEVVAHRRPRDGEENFKALVLTAFNOYIQCGPEBDHVLVNEVTEFAKTCVADSEA	148
DB	24	RDTHKSEIARHREFDQGEQFKGLVLTAFSQYDQCFDEHVKLVNELTEPAKTCVADSEH	83
QY	149	ENCDSLHTLFGDKLCTVATLRETYGEMADCCAKQEPENEGFLQHKDNPMLPRLVRPE	208
DB	84	AGCEKSLHTLFGDELCKVASLHETTYDMDCCCKQEPENEGFLSHKSDSPDLFKL-KPD	142
QY	209	VDVWCTAFHNDERTFLKLTLYEIAHRRPYFAPELLFAKRYKAATTECCQADAKACIL	268
DB	143	PNTLCGEFADEKKEFMGKLTLYEIAHRRPYFAPELLYANKYGVFQDCQADKACIL	202
QY	269	PKIDELRDEKQASSAQRLKCSLQFGERAFKAVAVALLSQRFPAEFAVSKVLTDLT	328
DB	203	PKIETWREKVLASSARQRLCASIQKGERALKAMVAALSQFPAEFAVETKLVTDLT	262
QY	329	KVHTCECHGDLIECADRADLAKYICENODSISSKICECEKPIEKSHCIAEVDENDP	388
DB	263	KVHKCECHGDLIECADRADLAKYICENODTSSKICECDRLKSHCIAEVEDADLP	322
QY	389	ADLPSLADFVESKDYCKNVAEAKDVLGMFLYVARRRPDYSVLLRLAKTYETTLK	448
DB	323	ENLPPLTADPAEDKQCKNVAEAKDVLGMFLYVARRRPDYAVSLRLAKTYEATLKE	382
QY	449	CCAAADPHHCYAKVDEFPRLVEBPONLIKONCELEQGEYKFOALLVRYTKRPQVS	508
DB	383	CCAKDDPHACYSTVPFKLKHLYDPEONLIKONCDQPEKLGEGYGFONALVRYTKRPQVS	442
QY	509	TPTLVSVSRNLGVGSKCCCHNPKAKMPCAEEDLVLLNOLCVLHKTPTVSDRTKCTE	568
DB	443	TPTLVSVSRNLGVGSRCTCPKPSERMPCTEDLVLLNOLCVLHKTPTVSEKVTCTE	502
QY	569	SLVNRPPCFSALEVDETVVPKEFNATFTFHADICTLSBKEROIKQTLVLELVKPKPA	628
DB	503	SLVNRPPCFBALPDETYVPKAFDEKLFTFHADICTLPTBRIKKQTLVLELVKPKPA	562
QY	629	TKEQLRVMDPAFVPEKCKKADKTCFPAEBSKLVVAASQAL	672
DB	563	TEEQLRVMDPAFVPEKCKKADKTCFPAEBSKLVVSTOTAL	606

RESULT 6
 ABSHS
 C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
 C:Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004
 C:Accession: S06936
 R:Brown, W.M.; Dziegielewska, K.M.; Foreman, R.C.; Saunders, N.R.
 Nucleic Acids Res. 17, 10495, 1989
 A:Title: Nucleotide and deduced amino acid sequence of sheep serum albumin.
 A:Reference number: S06936; MUID:90098888; PMID:2602160
 A:Accession: S06936


```

Db      84 ENCDKSIHTLFGDKLCAIPRLRDNYGELADCCAKQBERNECFLOHKDNDPNLP.PPFORE 143
Qy      209 VDMCTAFPHDNEETFLKYLVEIARHHPFYAPPELLFPKRYKAAFTTECCQAADRAACL 268
Db      144 AEMCTSFQENPFSFLGHYLVHEVARHHPFYAPPELLYAEKVEVLTQCTTESDKAACL 203
Qy      269 PKLDELDEGKASSAKORLKASLOKGRERAFAMVARSORPFAEFAVSKLVTDLT 328
Db      204 PKLDVAKEKALVAVAPQRMKCSMORFGERAFAMVARSORFPNAEFITKLATDVT 263
Qy      329 KYHTECHGDLLECADRADLAKYICENODTSSKLKECCERPLEKSHCIAEVDENP 368
Db      264 KINKECHGDLLECADRADLAKYICENODTSSKLQACCDKVLQKSOCLAEETHNDIP 323
Qy      389 ADLPSLAADFVESKQVCKNYAEAKOVFLGMFLYEYARRHDPYSVLLRLAKYETTLER 448
Db      324 ADLPSLAADFVEDKEVKCNVAEAKOVFLGTFLEYEYARRHDPYSVLLRLAKYETTLER 383
Qy      449 CCAADPHCEYAFVDEFRPLVEBPONLIKONCELEFQGEYKPNALLVRYTKVPQVS 508
Db      384 CCAEGRPACYGTVLAEFQPLVEBPKNLVKTNCELEKGEYGFONAVLVRYTQKAPQVS 443
Qy      509 TPTLVEVSRLGKVGSKCKGHPKAPKMPCAEDYLSVVLNQLCVLHEKTPVSDRYKCTE 568
Db      444 TPTLVEVARRLGVGKTCCTLPKAPQRLPCVEDYLSALNRLCVLHEKTPVSEKVTQCSG 503
Qy      569 SLVNRPPCSALVEVDITYVKEFNAETFFPHADICTLSEKEROIKQQTALVELVKHPKA 628
Db      504 SLVNRPPCSALVTDEITYVKEFNAETFFPHADICTLPDEKQIKQQTALAEVKKHPKA 563
Qy      629 TKQQLKAVMDPAFAFVEKCKKADDKETCPAEBGKULVAAGQAL 672
Db      564 TEDQLTKVMGDFQAFVQKCKKADKDCFAETEGNVLARSKEAL 607

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RESULT 8

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ABPES
Serum albumin precursor - pig (fragment)
C/Species: Sus scrofa domestica (domestic pig)
C/Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004
C/Accession: S01382; A61006
R/Meinert, J.; Baldwin, G.S.
Nucleic Acids Res. 16, 9045, 1988
A/Title: Nucleotide sequence of porcine liver albumin.
A/Reference number: S01382; MUID:89016582; PMID:3174440
A/Accession: S01382
A/Status: translation not shown
A/Molecule type: mRNA
A/Residues: 1-605 <WEI>
A/Cross-references: UNIPROT:P08835; UNIPARC:UPI00001257C7; EMBL:X12422; NID:q1875; PIDN:
R/Limeback, H.; Sakarya, H.; Chu, W.; Mackinnon, M.
J. Bone Miner. Res. 4, 235-241, 1989
A/Title: Serum albumin and its acid hydrolysis peptides dominate preparations of mineral
A/Reference number: A61006; MUID:89265765; PMID:21278927
A/Accession: A61006
A/Molecule type: protein
A/Residues: 23-51, 'X', 53-54, 'XXXXY', 146, 'E', 148, 'E', 150-151, 'XVW', 155 <LIM>
A/Cross-references: UNIPARC:UPI0000174414; UNIPARC:UPI0000174415
A/Experimental source: dental enamel
A/Note: Albumin and other serum proteins are also found in bone
C/Comment: Serum albumin is synthesized in the liver as preproalbumin. It binds copper,
teroid hormones (weak bonds with these hormones promote their transfer across the membra
C/Superfamily: serum albumin; serum albumin repeat homology
C/Keywords: carrier protein; duplication; metal binding; Plasma
F/1-16/Domain: signal sequence (fragment) #status predicted <PRO>
F/1-22/Domain: propeptide #status predicted <PRO>
F/23-605/Product: serum albumin #status predicted <MAT>
F/27-199/Domain: serum albumin repeat homology <SA>
F/218-391/Domain: serum albumin repeat homology <SA2>
F/410-589/Domain: serum albumin repeat homology <SA3>
F/75-84, 97-113, 112-113, 145-190, 189-198, 221-267, 266-274, 286-300, 299-310, 337-382, 381-390, 4
F/261/Binding site: bilirubin (Lys) #status predicted

```

Query Match 67.7%; Score 2416.5; DB 1; Length 605;
 Best Local Similarity 76.1%; Pred. No. 1.7e-151;
 Matches 439; Conservative 67; Mismatches 70; Indels 1; Gaps 1;

```

Qy      89 RDAHSEVARRPKDIGENEFKALVLIAPQYIQCCPFEDHVLVNEVTEPATTCVADESA 148
Db      22 RDTYSEIARRPKDIGEQYFKGLVLIAPSOHLQCCPYEHHVLVNEVTEPATTCVADESA 81
Qy      149 ENCDKSIHTLFGDKLCAIPSLREHYGDLDCCKEPERNECFLOHKDNDPNLP.PRLVPE 208
Db      82 ENCDKSIHTLFGDKLCAIPSLREHYGDLDCCKEPERNECFLOHKDNDPNLP.PRLVPE 140
Qy      209 VDMCTAFPHDNEETFLKYLVEIARHHPFYAPPELLFPKRYKAAFTTECCQAADRAACL 268
Db      141 PVALCADFQEDDQKFMFGKLVLEIARRHHPFYAPPELLYALITKQVFECCQAADRAACL 200
Qy      269 PKLDELDEGKASSAKORLKASLOKGRERAFAMVARSORPFAEFAVSKLVTDLT 328
Db      201 PKLEHREKVLTSAAKQRLKASIQKGRERAFAMVARSORPFAEFTETSKVTDLA 260
Qy      329 KYHTECHGDLLECADRADLAKYICENODTSSKLKECCERPLEKSHCIAEVDENP 388
Db      261 KYHKECHGDLLECADRADLAKYICENODTSSKLKECCERPLEKSHCIAEVDENP 320
Qy      389 ADLPSLAADFVESKQVCKNYAEAKOVFLGMFLYEYARRHDPYSVLLRLAKYETTLER 448
Db      321 ADLNPLEHDFVEDKEVKCNVAEAKOVFLGTFLEYEYARRHDPYSVLLRLAKYETTLER 380
Qy      449 CCAADPHCEYAFVDEFRPLVEBPONLIKONCELEFQGEYKPNALLVRYTKVPQVS 508
Db      381 CCAKEDPPACVATVDFQPLVDEPNLIIKONCELEKGEYGFONALLVRYTKVPQVS 440
Qy      509 TPTLVEVSRLGKVGSKCKGHPKAPKMPCAEDYLSVVLNQLCVLHEKTPVSDRYKCTE 568
Db      441 TPTLVEVARRLGVGKTCCTLPKAPQRLPCVEDYLSALNRLCVLHEKTPVSEKVTQCSG 500
Qy      569 SLVNRPPCSALVEVDITYVKEFNAETFFPHADICTLSEKEROIKQQTALVELVKHPKA 628
Db      501 SLVNRPPCSALVPDITYVKEFVEGTFFPHADICTLPDEKQIKQQTALAEVKKHPKA 560
Qy      629 TKQQLKAVMDPAFAFVEKCKKADDKETCPAEBGKULV 665
Db      561 TEQQLRTVIGNFAAFVQKCAAPDHACFAVGGPKV 597

```

RESULT 9

```

JCS838
albumin - Mongolian jird
C/Species: Meriones unguiculatus (Mongolian jird)
C/Date: 05-Mar-1998 #sequence_revision 13-Mar-1998 #text_change 09-Jul-2004
C/Accession: JCS838
R/Yoshida, K.; Seto-Ohashima, A.; Sinohara, H.
DNA Res. 4, 351-354, 1997
A/Title: Sequencing of cDNA encoding serum albumin and its extrahapatic synthesis in the
A/Reference number: JCS838; MUID:98116663; PMID:9455485
A/Accession: JCS838
A/Molecule type: mRNA
A/Residues: 1-609 <YOS>
A/Cross-references: UNIPROT:Q35090; UNIPARC:UPI00001257C5; DDBJ:AB006197; NID:q2317277;
A/Experimental source: liver
C/Superfamily: serum albumin; serum albumin repeat homology
F/222-395/Domain: serum albumin repeat homology <SA2>

```

Query Match 66.9%; Score 2387.5; DB 2; Length 609;
 Best Local Similarity 73.8%; Pred. No. 1.4e-149;
 Matches 432; Conservative 65; Mismatches 87; Indels 1; Gaps 1;

```

Qy      89 RD-AHSEVARRPKDIGENEFKALVLIAPQYIQCCPFEDHVLVNEVTEPATTCVAADS 147
Db      24 RDAHSEIARRPKDIGEKFKALVLYTFSQYIQKSYEBHVLVREVTDPASNCADKS 83
Qy      148 AEMCTSFHTLFGDKLCAVATLRETYGEMADCCAKQBERNECFLOHKDNDPNLP.PRLVPR 207

```


Best Local Similarity 39.7%; Pred. No.2.le-75;
Matches 238; Conservative 117; Mismatches 238; Indels 7; Gaps 3;

```
QY 81 FIAMLVKGRDAKSE-----VAHFKYDQGHENKALVLIFAQVLYQQCFPDHYKLVNEV 135
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 11 FLNLTERTSRTIHRNEGIASIIIDSYQCTAEINLTDTATIEPAQVQKEATYEVESIMVDA 70
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 136 TEFAATCVADAESAENCDKSLHTLFGDKLCTVALTLRETYGMAADCAQOEPRNECFLQHK 195
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 71 LTAIEKPGDEDSAGCLENQLPAFLEELCRKSLTEKYG-SDCCSSSEBRNHCFLANH 129
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 196 DQNP-NLPELVAPREVDMCTAFHNEETFLPKYLYEIAHRHPYFPADELLFFARRYKAA 254
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 130 KPTASISIPFQYPERPITSCEAYEEDRETFMNKFIYEIARHNPFLYAPRTILMAARYDKII 189
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 255 TECCQADRAKALPRYLDELRDGKASSAKQRLKMSLQKGFGEPAFQAVANLSQRPK 314
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 190 PSCCAENAVNECFQTKAATVTYKELRESSLIHQHCAVMKNFGTFTFOATVTKLSQKPTK 249
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 315 AEPFAVSKLVMDLTLYKHTSCGGDLLECCDDRADLAKYICENODSISKKECCPKYLE 374
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 250 VNFETIQIKVLVDVAHNEHCRCRDVLDLDQDEKINSYISQDQTLSSKLTIECKLTLE 309
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 375 KSHCIAEYENDEMPADLPISLADPFVESKQVCKNVAEAKDVFELGFLYEYARRHDPYSVL 434
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 310 RGQCIHAENDEKPELSINLRFGLDRDFNQSSGSKNIFLASFYHYSRHRPQLAVSV 369
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 435 ILRLAKYETTLIEKCSAAMDPRHECYAKVFDEPRFLVEBPONLTKONCELPQGLGKQON 494
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 370 ILRVAKGYDELLIEKCFQTNENPLECQDKGEHELQYIOESQALARRS CGLFQKLGHYLON 429
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 495 ALLVAYTKKVPQVSTFTLYVEVSRLGKVGSKCKKHPRAKMPCADYLSVVLNQLCVLHE 554
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 430 AFLVAYTKKAPQLTSSSELMATIRKMAATAYATCCQLSDKILCAGEAADITIGHICIRHE 489
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 555 KRPVSDRVKCCSTESLVNRRPCPSALEVDEDTYVPKENAETFTFHADICTLSEKEROIKK 614
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 490 TTPVAPVGQCCSTSTYANRRPCRSSSLVVDETTYPPRPSDDKFTIRHKLQCAQGVALQTMK 549
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 615 QTAIVELVGHKKRATREKQLKAVMDPFAFVEKCCCKADKETCPAEEGKLVAAQSALGL 674
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 550 QEFNLINLVKQKQPTTEQLEAVIADPSGLLEKCCQGEQVECFPAEEGQLISKTRPALGV 609
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

RESULT 13
PFHU
alpha-fetoprotein precursor [validated] - human
M:Alternate names: AFP; alpha-1-fetoprotein; alpha-fetoglobulin
C:Species: Homo sapiens (man)
C:Date: 19-Feb-1984 #sequence_revision 19-Feb-1984 #text_change 09-Jul-2004
C:Citation: A26624; S37655; A9361; A91497; A23699; A61480; A90624; A90757; A93042; AO:
R:Gibbs, P.E.M.; Zielenki, R.; Boyd, C.; Dugalczyk, A.
Biochemistry 26, 1332-1343, 1987
A:Title: Structure, polymorphism, and novel repeated DNA elements revealed by a complete
A:Reference number: A26624; PMID:87185438; PMID:2446661
A:Accession: A26624
A:Molecule type: DNA
A:Residues: 1-609 <GIB>
A:Note: the authors translated the codon TAT for residue 26 as Thr
R:Mcvey, J.H.; Michaelides, K.; Hansen, L.P.; Ferguson-Smith, M.; Tilghman, S.; Krumlauf;
Hum. Mol. Genet. 2, 373-384, 1993
A:Title: A G->A substitution in an HNP I binding site in the human alpha-fetoprotein gene
A:Reference number: S37655; PMID:93278385; PMID:7684942
A:Accession: S37655
A:Molecule type: DNA
A:Residues: 1-28 <MCV>
A:Cross-references: UNIPARC:UPI000016A4DP; EMBL:Z19532; NID:28527; PIDN:CAA79592.1; PIR
A:Note: the authors translated the codon TAT for residue 26 as Thr
R:Morinaga, T.; Sakai, M.; Wegmann, T.G.; Tamacki, T.
Proc. Natl. Acad. Sci. U.S.A. 80, 4604-4608, 1983
A:Title: Primary structures of human alpha-fetoprotein and its mRNA.
A:Reference number: A93961; PMID:83273664; PMID:6192439
A:Accession: A93961
```

A:Molecule type: mRNA
A:Cross-references: UNIPARC:UPI00000012A9; GB:J00077; NID:G311348; PIND:CAA24758.1; PID:RiBeatle, W.G.; Dugaiczky, A.
Gene 20, 415-422, 1982
A:Title: Structure and evolution of human alpha-fetoprotein deduced from partial sequencing
A:Reference number: A91497; MUID:83158778; PMID:6187626
A:Accession: A91497
A:Molecule type: mRNA
A:Residues: 429-556 <BEA>
A:Cross-references: UNIPARC:UPI0000174421; GB:J00076
R:Pucci, P.; Scigliano, R.; Malorni, A.; Marino, G.; Tecce, M.F.; Ceccarini, C.; Terrana
Biochemistry 30, 5061-5066, 1991
A:Title: Human alpha-fetoprotein primary structure: a mass spectrometric study.
A:Reference number: A23699; MUID:91242409; PMID:1709810
A:Accession: A23699
A:Molecule type: protein
A:Residues: 19-45;60-97;102-107;122-184;187-249;255-489;507-609 <PUC>
A:Cross-references: UNIPARC:UPI0000174422; UNIPARC:UPI0000174423; UNIPARC:UPI0000174424;
R:Tecce, M.F.; Terrana, B.; Giuliani, M.F.; Ceccarini, C.
J. Ncl. Med. Allied Sci. 34, 213-216, 1990
A:Title: Characterization of in vitro expressed human alpha-fetoprotein as highly reproducible
A:Reference number: A61480; MUID:91225826; PMID:1709209
A:Accession: A61480
A:Molecule type: protein
A:Residues: 19-45;63-97;102-107;122-184;187-249;255-489;507-609 <TEC>
A:Cross-references: UNIPARC:UPI0000174422; UNIPARC:UPI0000174424; UNIPARC:UPI0000174425
R:Yachini, S.; Hsu, R.; Heinrikson, R.L.; Miller, J.B.
Biochim. Biophys. Acta 493, 418-428, 1977
A:Title: Studies on human alpha-fetoprotein. Isolation and characterization of monomeric
A:Reference number: A90624; MUID:77242506; PMID:70228
A:Accession: A90624
A:Molecule type: protein
A:Residues: 'S', 20-22, 'S', 24-35 <YAC>
A:Cross-references: UNIPARC:UPI000017442A
A:Note: dimeric and trimeric forms have been found in addition to the monomeric form
R:Aoyagi, Y.; Ikenaka, T.; Ichida, F.
Cancer Res. 37, 3663-3667, 1977
A:Title: Comparative chemical structure of human alpha-fetoproteins from fetal serum and
A:Reference number: A90757; MUID:78001760; PMID:71198
A:Accession: A90757
A:Molecule type: protein
A:Residues: 'S', 20-30, 'A', 32-37, 'A' <AOY>
A:Cross-references: UNIPARC:UPI000017442B
R:Ruoslahti, E.; Pihko, H.; Vaheri, A.; Seppala, M.; Virolainen, M.; Kontinen, A.
J. Biol. Chem. 260, 5055-5060, 1985
A:Title: The human alpha-fetoprotein gene. Sequence organization and the 5' flanking region
A:Reference number: A92520; MUID:85182629; PMID:5580830
A:Contents: annotation; gene, exons and introns
R:Aoyagi, Y.; Ikenaka, T.; Ichida, F.
Cancer Res. 38, 3483-3486, 1978
A:Title: Copper(II)-binding ability of human alpha-fetoprotein.
A:Reference number: A90758; MUID:79001517; PMID:80285
A:Contents: annotation; metal binding
R:Aoyagi, Y.; Ikenaka, T.; Ichida, F.
Cancer Res. 39, 3571-3574, 1979
A:Title: alpha-fetoprotein as a carrier protein in plasma and its bilirubin-binding ability
A:Reference number: A90759; MUID:80001710; PMID:89900
A:Contents: annotation; bilirubin binding
C:Comment: AFP is synthesized by the fetal liver and yolk sac. It occurs in the plasma at
a trace amounts after birth. The serum level in adults is usually less than 40 ng/ml. Abnormal
C:Comment: Human AFP binds copper, nickel, and fatty acids as well as, and the bilirubin
properties.
C:Genetics:
A:Gene: GDB:AFP

A:Cross-references: GDB:119660; OMIM:104150
A:Map position: 4q11-4q13
A:introns: 29/1; 46/2; 90/3; 161/2; 205/3; 238/2; 281/3; 353/2; 397/3; 430/2; 476/3; 551/2
C:Superfamily: serum albumin; serum albumin repeat homolog binding
C:Keywords: embryo; fetus; globulin; glycoprotein; metal binding; plasma
F:1-18/Domain: signal sequence #status predicted <Sig>
F:19-609/Product: alpha-fetoprotein #status experimental <Mat>
F:229-203/Domain: serum albumin repeat homology <SA1>
F:221-394/Domain: serum albumin repeat homology <SA2>
F:413-592/Domain: serum albumin repeat homology <SA3>
F:22/Binding site: copper (His) #status experimental
F:99-114,113-124,148-191,199-201,224-270,269-277,289-303,302-313,384-393,416-462,461-472/Binding site: bilirubin (lys) #status predicted
F:251/Binding site: carbohydrate (asn) (covalent) #status predicted

Query Match 35.2%; Score 1256.5; DB 1; Length 609;
Best Local Similarity 39.5%; Pred. No. 3-9e-75;
Matches 237; Conservative 118; Mismatches 238; Indels 7; Gaps 3;

QY FIAVLVKGRAHSE-----VAHRFKDLGENFKALVILFAOYLQCCPEPDHVKLVNEV 135
DB 11 FLNFTESRTLHRRREYGIASLTDSYQCTAETASLADLTATTFADQVQATYKEVSKVXDA 70
QY 136 TEPAKTCVADESANCKSLHTLEFGDKLCVATLREYVYGEADCCAKQEBERNECFLOHK 195
DB 71 LTAIEKPTGDESSGCLLENQLPALFEEICHEKILEKYGH-SDDCSSEGRNCFIAHK 129
QY 196 DDNF-NPRLVRPEVDVWCTAFHNDSETFKKYLYEIAHRHPYFYABELLFPAKRYKAF 254
DB 130 KPTFASIPDFQVPEPAPVTSCEAYEEDRETFMNKFYIEIARHHPFLYAPTITILMARAYDKII 189
QY 255 TECCQADAKAACLLPKDELDEBKASSAKQRLCASLQKFGREAFAMVAASLQGFEPK 314
DB 190 PSCCKAEVAVECFQTKATATYKELRESSLLNQHCAVMKNGFTTFQATITVTKLSQKFTK 249
QY 315 AEPAEVSRLVLDLTKVYTECHGDLLECAADRADLAKYICENODSISKLKCECEKPLLE 374
DB 250 VNFETIQCLVDVAHVHNECCRGVLDCTODGEKIMYISQDDTLSNKLTCECKKLTLE 309
QY 375 KSHCIAEYENDEMPADLPSLAADFVESKDYVCNKYAEAKDVFLENGFLTYVARRRHDSVVL 434
DB 310 RGQCI IHAENDEKEGEGISPNLNRFLGDRDFNQFSSGSKNIFLASFVHEYSRRHPQLAVSV 369
QY 435 LIRLAKTYETTLKCCCAADPHCEYAFVDFEPRKLYVEPQNLKONELFEOUGEYKFEON 494
DB 370 ILRAVKGQELLEKCFOTENPLECQDQGEELQYIGESQALARRSGCLFQKLGSEYLYON 429
QY 495 ALAVRYTKVQVSTPTLVEYSRLKGVKSGCKGHPAKMPKCAEDLYSVLNQCVLHSE 554
DB 430 AFLVAATYKAPQLTSSSELMATITRMAATTAATCCQSLSEDKLACGEGAAIIIGLTCIRHE 489
QY 555 KTPVSDRYTKCTESTLVNRRPFSALAEVDETTYVPKEFNAETFTFHADICTLSEKERQIKK 614
DB 490 MTPVNPAGQGCCTSTSYANRRPCTSSLVDETYVPPASDDKFIHKLQCAQGVALTQM 549
QY 615 QTALELVKHKPKATKQOLKAVMDPFAFVECKCKADKXETCFPEBEGKLVAAASQALGL 674
DB 550 QEFINILNVKQRPQITTEBIVADFSGLLLEKCCQGOEVCFAEBQKLSIKTRALGV 609

RESULT 14
PFCO
alpha-fetoprotein precursor - gorilla
C:Species: Gorilla gorilla (gorilla)
C:Date: 31-Dec-1993 #sequence_revieion 31-Dec-1993 #text_change 09-Jul-2004
C:Accession: A37970
R:Ryan, S.C.; Zitelinski, R.; Dugaiczky, A.
Genomes 9, 60-72, 1991
A>Title: Structure of the gorilla alpha-fetoprotein gene and the divergence of primates
A:Reference number: A37970; MUID:91169517; PMID:1706310
A:Accession: A37970
A:Molecule type: DNA
A:Residues: 1-609 <RFA>

GenCore version 5.1.7
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OM protein - protein search, using bw model

Run on: April 19, 2006, 11:57:02 ; Search time 178.074 Seconds
(without alignments)
2670.387 Million cell updates/sec

Title: US-10-775-180-447

Perfect score: 3568

Sequence: 1 NMIFRFLSLSTVQGLHT.....TCFAERGKTLVAASQALGL 674

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt 05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	3108	87.1	609	1 ALBU_HUMAN	P02768 homo sapien
2	3108	87.1	609	2 Q64SG4_HUMAN	Q64594 homo sapien
3	3108	87.1	609	2 Q5NVH5_PONPY	Q5NVH5 pongo pygma
4	3084	86.4	609	2 Q68DH5_HUMAN	Q68dh5 homo sapien
5	3073	86.1	609	2 Q56G89_HUMAN	Q56g89 homo sapien
6	3066	85.9	627	2 Q5D0D7_HUMAN	Q5d0d7 homo sapien
7	2947	82.6	600	1 ALBU_MRCMU	Q28552 macaca mula
8	2627	73.6	608	1 ALBU_FELCA	P49064 felis elive
9	2574	72.1	608	1 ALBU_CANFA	P49822 canis fam11
10	2509	70.3	608	2 Q95VB7_SCHMA	Q95vb7 schistosoma
11	2501.5	70.1	607	1 ALBU_EQUAS	Q51x64 equus asinu
12	2481.5	69.5	607	1 ALBU_HORSE	P35747 equus caball
13	2469	69.2	608	2 Q5EG68_MICRO	Q5eg68 microtus fo
14	2462	69.0	608	2 Q5EG49_MICRO	P49065 microtus fo
15	2460	68.9	608	2 Q5EG49_MICRO	Q5eg49 microtus fo
16	2455.5	68.8	607	1 ALBU_BOVIN	P02769 bos taurus
17	2438	68.3	607	2 Q5U3X3_RAT	P14639 ovine aries
18	2437.5	68.3	607	1 ALBU_SHEEP	P02770 ovine aries
19	2431	68.1	608	1 ALBU_RAT	P08835 sus scrofa
20	2409.5	67.5	607	1 ALBU_PIG	Q6wdn9 cavia porce
21	2392	67.0	608	2 Q6WDN9_CAVPO	Q6wdn9 cavia porce
22	2387.5	66.9	609	1 ALBU_MERUN	Q30500 meriones un
23	2383	66.8	608	1 ALBU_MOUSE	P07724 mus musculu
24	2383	66.8	608	2 Q546G4_MOUSE	Q546g4 mus musculu
25	2379.5	66.7	583	2 Q6B3Z0_ELEMA	Q6b3z0 elephas max
26	2379	66.7	608	2 Q8C7H3_MOUSE	Q8c7h3 mus musculu
27	2336	65.5	576	2 Q8C7C7_MOUSE	Q8c7c7 mus musculu
28	1991	55.8	417	2 Q86YGO_HUMAN	Q86ygo homo sapien
29	1870.5	52.4	396	2 Q81UK7_HUMAN	Q81uk7 homo sapien
30	1562	43.8	615	1 ALBU_CHICK	P19121 gallus gall
31	1295.5	36.3	527	2 Q8U719_SPHPU	Q8u719 sphendon p

32	1260.5	35.3	609	1 FETA_PANTR	Q28789 pan troglod
33	1256.5	35.2	609	1 FETA_HUMAN	P02771 homo sapien
34	1249.5	35.0	609	1 FETA_GORGO	P28050 gorilla gor
35	1242	34.8	609	2 Q8MUJ5_CANFA	Q8muj5 canis fam11
36	1242	34.8	626	2 Q8UW05_AMBMC	Q8uw05 ambystoma m
37	1218.5	34.2	610	2 Q8MU76_PIG	Q8mu76 sus scrofa
38	1215.5	34.1	609	2 Q5CZ21_XENTR	Q5cz21 xenopus tro
39	1207.5	33.8	607	1 ALBU2_XENTLA	P14872 xenopus lae
40	1201.5	33.7	607	2 Q642P7_XENTLA	Q642p7 xenopus lae
41	1200	33.6	609	1 FETA_HORSE	P49066 equus caball
42	1183.5	33.2	608	2 Q7TSF3_MARMO	Q7tsf3 marmota mon
43	1178.5	33.0	615	1 FETA_CHICK	P84407 gallus gall
44	1164.5	32.6	606	1 ALBU1_XENTLA	P08759 xenopus lae
45	1087	30.5	624	2 Q8UW06_AMBTE	Q8uw06 ambystoma t

ALIGNMENTS

RESULT 1

ALBU_HUMAN STANDARD, PRT, 609 AA.
ID ALBU_HUMAN P02768; O95574; P04277; Q13140; Q6UXK4; Q9P157; Q9P117; Q9UHS3;
AC Q9UJ20;
DT 21-JUL-1986 (Rel. 01, Created)
DT 01-APR-1990 (Rel. 14, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Serum albumin precursor.
GN Name=ALB;
GN ORFNames=PRO0903, PRO1708, PRO2044, PRO2619, PRO2675, UNQ696/PRO1341;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homidae;
OC Homo.
NCBI_TaxID=9606;
[1]
NP NUCLEOTIDE SEQUENCE [GENOMIC DNA].
RX MEDLINE=86196112; PubMed=3009475;
RA Minghetti P.P., Ruffner D.E., Kuang W.J., Dennison O.E., Hawkins J.W.,
RT Beatlie W.G., Dugalczyk A.;
RT "Molecular structure of the human albumin gene is revealed by
RT nucleotide sequence within q11-22 of chromosome 4.";
RT J. Biol. Chem. 261:6747-6757(1986).
[2]
RL NUCLEOTIDE SEQUENCE [MRNA], AND VARIANT LYS-420.
RP MEDLINE=82081882; PubMed=6171778;
RX Lawn R.M., Adelman J., Bock S.C., Franke A.E., Houck C.M.,
RA Najjarian R.C., Seeburg P.H., Wilson K.L.;
RT "The sequence of human serum albumin cDNA and its expression in E.
RT coli.";
RL Nucleic Acids Res. 9:6103-6114(1981).
[3]
RN NUCLEOTIDE SEQUENCE [MRNA], AND VARIANT GLY-121.
RP MEDLINE=82105994; PubMed=6275391;
RX Dugalczyk A., Law S.W., Dennison O.E.;
RA "Nucleotide sequence and the encoded amino acids of human serum
RT albumin mRNA.";
RL Proc. Natl. Acad. Sci. U.S.A. 79:71-75(1982).
[4]
RN NUCLEOTIDE SEQUENCE [MRNA].
RP TISSUE=Liver;
RA Yang S., Zhang R.A., Qi Z.W., Yuan Z.Y.;
RT "Human serum albumin.";
RT Submitted (SEP-1999) to the EMBL/GenBank/DBJ databases.
[5]
RN NUCLEOTIDE SEQUENCE [MRNA], AND VARIANT HIROSHIMA-1 LYS-378.
RA Hwang M.C., Wu H.T.;
RT "The cDNA sequences of human serum albumin.";
RT Submitted (AUG-2002) to the EMBL/GenBank/DBJ databases.
[6]
RN NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RP TISSUE=Fetal liver;
RX MEDLINE=21376145; PubMed=11483580; DOI=10.1101/gr.175501;

RA Yu Y., Zhang C., Zhou G., Wu S., Qu X., Wei H., Xing G., Dong C.,
 RA Zhai Y., Wan J., Ouyang S., Li L., Zhang S., Zhou K., Zhang Y., Wu C.,
 RA He F.;
 RT "Gene expression profiling in human fetal liver and identification of
 RT tissue- and developmental-stage-specific genes through compiled
 RT expression profiles and efficient cloning of full-length cDNAs.";
 RN Genome Res. 11:1392-1403(2001).
 RN [7]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC TISSUE=liver, and Skeletal muscle.
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnae.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shennan C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusik K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldi M.F., Caesvant T.L., Schetz T.E.,
 RA Brownstein M.U., Utsid T.B., Toshlyuk S., Carninci P., Frange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullighy S.J.,
 RA Bosak S.A., Mewan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Villalón D.K., Murry K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Fahy J., Heiton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Buterfield Y.S.N., Krzywinski M.I., Skalska U., Smalhus D.E.,
 RA Scherch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RN Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [8]
 RP PROTEIN SEQUENCE OF 25-609.
 RX MEDLINE=76187907; PubMed=1225573; DOI=10.1016/0014-5793(75)80242-0;
 RA Meloun B., Moravek L., Koscka V.;
 RT "Complete amino acid sequence of human serum albumin.";
 RN FEBS Lett. 58:134-137(1975).
 RN [9]
 RP PROTEIN SEQUENCE OF 25-609.
 RA Brown J.R., Shockley P., Behrens P.Q.;
 RL "(In) Bing D.H. (eds.);
 RL The chemistry and physiology of the human plasma proteins, pp.23-40,
 RL Pergamon Press, New York (1979).
 RN [10]
 RP NUCLEOTIDE SEQUENCE OF 1-455.
 RC TISSUE=liver;
 RA Menaya J., Parrilla R., Ayuso M.S.;
 RL Submitted (MAR-1995) to the EMBL/GenBank/DBJ databases.
 RN [11]
 RP NUCLEOTIDE SEQUENCE OF 1-26.
 RX MEDLINE=86140099; PubMed=2419329;
 RA Umano Y., Watanabe K., Sakai M., Tamaki T.;
 RT "The human albumin gene. Characterization of the 5' and 3' flanking
 RT regions and the polymorphic gene transcripts.";
 RN J. Biol. Chem. 261:3244-3251(1986).
 RN [12]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] OF 1-167.
 RX MEDLINE=22887266; PubMed=12975309; DOI=10.1101/gr.1293003;
 RA Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D.T., Brush J.,
 RA Chen J., Chow B., Chui C., Crowley C., Cutrell B., Deuel B., Dowd P.,
 RA Eaton D., Foster J.S., Grimaldi C., Gu Q., Hase P.B., Helens S.,
 RA Huang A., Kim H.S., Kilmowski L., Jin Y., Johnson S., Lee J.,
 RA Lewis L., Liao D., Mark M.R., Robbie E., Sanchez C., Schoenfeld J.,
 RA Seshagiri S., Simons L., Singh J., Smith V., Stinson J., Vagts A.,
 RA Vanden R.L., Watanabe C., Wleand D., Woods K., Xie M.-H.,
 RA Yanuura D.G., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A.D.,
 RA Wood W.L., Godowski P.J., Gray A.M.;
 RT "The secreted protein discovery initiative (SPDI), a large-scale
 RT effort to identify novel human secreted and transmembrane proteins: a
 RT bioinformatics assessment.";
 RN Genome Res. 13:2265-2270(2003).
 RN [13]
 RP PROTEIN SEQUENCE OF 222-229.

RX MEDLINE=76257808; PubMed=955075; DOI=10.1016/0014-5793(76)80496-6;
 RA Walker J.B.;
 RT "Lysine residue 199 of human serum albumin is modified by
 RT acetylalicylic acid.";
 RN FEBS Lett. 66:173-175(1976).
 RN [14]
 RP PROTEIN SEQUENCE OF 25-44 AND 480-499.
 RC TISSUE=heart;
 RX MEDLINE=95203287; PubMed=7895732;
 RA Corbett J.M., Wheeler C.H., Baker C.S., Yacoub M.H., Dunn M.J.;
 RT "The human myocardial two-dimensional gel protein database: update
 RT 1994.";
 RN Electrophoresis 15:1459-1465(1994).
 RN [15]
 RP PROTEIN SEQUENCE OF 166-174.
 RX MEDLINE=86242180; PubMed=3087352;
 RA Mogard M.H., Kobayashi R., Chen C.F., Lee T.D., Reeve J.R. Jr.,
 RA Shirely J.B., Walsh J.H.;
 RT "The amino acid sequence of kinetensin, a novel peptide isolated from
 RT pepsin-treated human plasma: homology with human serum albumin,
 RT neurotensin and angiotensin.";
 RN Biochem. Biophys. Res. Commun. 136:983-988(1986).
 RN [16]
 RP PROTEIN SEQUENCE OF 166-174.
 RX MEDLINE=87194805; PubMed=2437111;
 RA Carraway R.E., Mitra S.P., Cochran D.E.;
 RT "Structure of a biologically active neurotensin-related peptide
 RT obtained from pepsin-treated albumin(s).";
 RN J. Biol. Chem. 262:5968-5973(1987).
 RN [17]
 RP DISULFIDE BONDS.
 RA Sabar M.A., Stockbauer P., Moravek L., Meloun B.;
 RT "Disulfide bonds in human serum albumin.";
 RN Collect. Czech. Chem. Commun. 42:564-579(1977).
 RN [18]
 RP BILIRUBIN-BINDING SITE.
 RX MEDLINE=78186530; PubMed=656055;
 RA Jacobsen C.;
 RT "Lysine residue 240 of human serum albumin is involved in high-
 RT affinity binding of bilirubin.";
 RN Biochem. J. 171:453-459(1978).
 RN [19]
 RP VARIANT CANTERBURY ASN-337.
 RX MEDLINE=87157744; PubMed=3628358; DOI=10.1016/0167-4838(87)90086-4;
 RA Brennan S.O., Herbert P.;
 RT "Albumin Canterbury (313 Lys-->Asn). A point mutation in the second
 RT domain of serum albumin.";
 RN Biochim. Biophys. Acta 912:191-197(1987).
 RN [20]
 RP VARIANTS NASKAPI/MERSIN GLU-396 AND MEXICO GLY-574.
 RX MEDLINE=87260818; PubMed=3474609;
 RA Takehashi N., Takehashi Y., Blumberg B.S., Putnam F.W.;
 RT "Amino acid substitutions in genetic variants of human serum albumin
 RT and in sequences inferred from molecular cloning.";
 RN Proc. Natl. Acad. Sci. U.S.A. 84:4413-4417(1987).
 RN [21]
 RP VARIANTS NAGASAKI-3 GLN-27 YANOMAMA-2 GLU-396; NAGASAKI-2 ASN-399 AND
 RP MAKU GLY-565.
 RX MEDLINE=88068523; PubMed=3479777;
 RA Takehashi N., Takehashi Y., Isebe T., Putnam F.W., Fujita M.,
 RA Satoh C., Neel J.V.;
 RT "Amino acid substitutions in inherited albumin variants from
 RT Amerindian and Japanese populations.";
 RN Proc. Natl. Acad. Sci. U.S.A. 84:8001-8005(1987).
 RN [22]
 RP VARIANTS FUKUOKA-2 HIS-23; CHRISTCHURCH/HONOLULU-2 GLN-24; TAGLACOZZO
 RP ASN-337 AND ALBUMIN B/OSAKA-2/PHNOM PHEN LYS-594.
 RX MEDLINE=89098947; PubMed=2911589;
 RA Arai K., Ishioaka N., Hues K., Madison J., Putnam F.W.;
 RT "Identical structural changes in inherited albumin variants from
 RT different populations.";
 RN Proc. Natl. Acad. Sci. U.S.A. 86:434-438(1989).
 RN [23]

RP VARIANTS HONOLULU-2 GLN-24; NAGASAKI-1 GHY-293; HIROSHIMA-1 LYS-378;
RP TOCHIGI LYS-400; HIROSHIMA-2 LYS-406 AND OSAKA-2 LYS-594.

Query Match	87.1%;	Score 3108;	DB 1;	Length 609;
Best Local Similarity	100.0%;	Pred. No. 6.7e-190;		
Matches 586;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0

QY	89	KDAHSEVNAHRKJDLGEENFKALVLIAPAOYLQOCPEPDHVKVNEVTEPAKTCVADESA	148
Db	24	RDAAHSEVNAHRKJDLGEENFKALVLIAPAOYLQOCPEPDHVKVNEVTEPAKTCVADESA	83
QY	149	ENCDSLHNTLFGDKLCTVATLTRETVEAMDCCKAOEPERNIECPLQHKDNDPNLPRIVRPE	208
Db	84	ENCDSLHNTLFGDKLCTVATLTRETVEAMDCCKAOEPERNIECPLQHKDNDPNLPRIVRPE	143
QY	209	VDVMCTAFADNSETFLKKYLYEJARHPYFYABELLFPAKRYKAATTECCQAADKAACL	268
Db	144	VDVMCTAFADNSETFLKKYLYEJARHPYFYABELLFPAKRYKAATTECCQAADKAACL	203
QY	269	PLYDLBIRDEGKASAKQRLKCASLQKFGEPAPAMAVARLSQFPRAAPFAEVSCLVTDLT	328
Db	204	PLYDLBIRDEGKASAKQRLKCASLQKFGEPAPAMAVARLSQFPRAAPFAEVSCLVTDLT	263
QY	329	KHTECCHODLLECADRBRADIAKYICEODSISSKICECEKFLTEKSHCIAEVENDMP	388
Db	264	KHTECCHODLLECADRBRADIAKYICEODSISSKICECEKFLTEKSHCIAEVENDMP	323
QY	389	ADLPSTLADPVSSKOVCKVYAEAKDVFPLGFLTEVYARRHEDYSVLLRLAKYTEETLEK	448
Db	324	ADLPSTLADPVSSKOVCKVYAEAKDVFPLGFLTEVYARRHEDYSVLLRLAKYTEETLEK	363
QY	449	CCAAADPHECYAVPDEFPRLVEBPONLIKONCELPBOLGEYKFOVALIVRYTKKPOVS	508
Db	384	CCAAADPHECYAVPDEFPRLVEBPONLIKONCELPBOLGEYKFOVALIVRYTKKPOVS	443
QY	509	TPTLIVESNLGKVGSKCKCHPEAKKMPCAEDLISVLANOLCVLHEKTPVSDRYKCTE	568
Db	444	TPTLIVESNLGKVGSKCKCHPEAKKMPCAEDLISVLANOLCVLHEKTPVSDRYKCTE	503
QY	569	SLVNRAPCFSALEVEDITYVPKEBNAETFTFHADICTLSEKEROIKQOTALVELVKHPKA	628
Db	504	SLVNRAPCFSALEVEDITYVPKEBNAETFTFHADICTLSEKEROIKQOTALVELVKHPKA	563
QY	629	TYEBOLKAVNDPFAAFYEKCKKADDKETCPABEGKGLVAAQAAIGL	674
Db	564	TYEBOLKAVNDPFAAFYEKCKKADDKETCPABEGKGLVAAQAAIGL	609

RESULT 2

Q645G4 HUMAN
ID Q645G4 HUMAN PRELIMINARY; PRT; 609 AA.

AC Q645G4-2005 (Tremblrel. 30, Created)
 DT 10-MAY-2005 (Tremblrel. 30, Last sequence update)
 DT 10-MAY-2005 (Tremblrel. 30, Last sequence update)
 DT 10-MAY-2005 (Tremblrel. 30, Last annotation update)
 DS Serum albumin.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
 OC Homo.
 ON NCBI_TaxId=9606;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Liver;
 RA Yu Z., Fu Y.;
 RL "High Expression HSA in Pichia for Pharmaceutical Use.";
 RL Submitter (Aug-2004) to the EMBL/GenBank/DBD databases.
 RL EMBL; AY728024; AAU21642.1; -, mRNA.
 SQ SEQUENCE 609 AA; 69366 MW; F88FF61DD242B18 CRC64;

Query Match	87.1%	Score 3108	DB 2	Length 609
Best Local Similarity	100.0%	Pred. No. 6.7e-190		
Matches 586	Conservative 0	Mismatches 0	Gaps 0	

QY	89	RDANHSVAREPKDGEENFKALVILIAFOYLQOCPEPDHYKLVNEVTEPAKTCVADBSA	148
Db	24	RDANHSVAREPKDGEENFKALVILIAFOYLQOCPEPDHYKLVNEVTEPAKTCVADBSA	83
QY	149	ENDCKSLHTLPDQKCTVATLTERTYGMADCCAKQEPERNESCPIOHNDODNNPLPRLVRE	208
Db	84	ENDCKSLHTLPDQKCTVATLTERTYGMADCCAKQEPERNESCPIOHNDODNNPLPRLVRE	143
QY	209	VDVNCIAFADNNEETFLAKTLYEIAARHPYFYAPBELLFPAKRYKAFTCCOADAACA	266
Db	144	VDVNCIAFADNNEETFLAKTLYEIAARHPYFYAPBELLFPAKRYKAFTCCOADAACA	203
QY	269	PXIDELRDEGKSSAKQRLKCSLQCFGERAPKANAVALRSQRPPKAPFAVSYLVTDLT	328
Db	204	PXIDELRDEGKSSAKQRLKCSLQCFGERAPKANAVALRSQRPPKAPFAVSYLVTDLT	263
QY	329	KHNTCECHDILJECADRDADLAKYICENODSISLXKXCECKPYLEKSHCIAEYENDMP	388
Db	264	KHNTCECHDILJECADRDADLAKYICENODSISLXKXCECKPYLEKSHCIAEYENDMP	323
QY	389	ADPSLAADFVESKQVCKNKYAAEAKOVFLGMPFLYEYARHPDYSVLLRLAKTYETLEK	448
Db	324	ADPSLAADFVESKQVCKNKYAAEAKOVFLGMPFLYEYARHPDYSVLLRLAKTYETLEK	383
QY	449	CCAAADPHCEYAFDEFPRLVEBPONLIKONCELFEOJGKYQNALLVYTKYPOVS	506
Db	384	CCAAADPHCEYAFDEFPRLVEBPONLIKONCELFEOJGKYQNALLVYTKYPOVS	443
QY	509	TPTLVBSRYLTGKVGSKCKCKHPBARMPCAEYUSVLVNOLCYLHEKTPVSDRYTKCTE	566
Db	444	TPTLVBSRYLTGKVGSKCKCKHPBARMPCAEYUSVLVNOLCYLHEKTPVSDRYTKCTE	503
QY	569	SLVNRBPCFSALEVDSTYVPKEFNARETFPAADICTISEKEROIKQOTALVELYKAPKA	626
Db	504	SLVNRBPCFSALEVDSTYVPKEFNARETFPAADICTISEKEROIKQOTALVELYKAPKA	563
QY	629	TKEQILKAVMDPAFAYEKKCCAKDDYKTCFAEBGGKULVAASQALGL	674
Db	564	TKEQILKAVMDPAFAYEKKCCAKDDYKTCFAEBGGKULVAASQALGL	609

RESULT 3

Q5NVH5_PONPY
ID Q5NVH5_PONPY PRELIMINARY;
PRT; 609 AA

AC Q5NVH5.1
AD 01-FEB-2005 (TrEMBLrel. 29, Created)
DT 01-FEB-2005 (TrEMBLrel. 29, last sequence update)
DT 01-FEB-2005 (TrEMBLrel. 29, last annotation update)
DE Hypothetical protein DKFp459F2310.
GN Name=DKFp459F2310.
OS Pongo pygmaeus (Orangutan).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homnidae;
OC Pongo.
OX NCBI_TaxID=9600;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Cortex;
RG The German cDNA Consortium;
RA Wanduth R., Heubner D., Mewes H.W., Weil B., Amid C., Osanger A.,
RA Foto G., Han M., Wiemann S.;
RL Submitted (NOV-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL: CR926060; CA129688.1; -, mRNA.
DR SMR; Q5NVH5: 26-608.
DR GO; GO:0005615; C:extracellular space; ISA.
DR GO; GO:0005386; F:carrier activity; ISA.
DR GO; GO:0006810; P:transport; ISA.
DR InterPro; IPR001703; Alphafeoprot.
DR InterPro; IPR000264; Serum albumin.
DR Pfam; PF00273; Serum albumin; 3.
DR PRINTS; PR00803; AFETOPROTEIN.
DR PRINTS; PR00802; SERUMALBUMIN.

DR ProdOm; PD002486; Serum albumin; 1.
 DR SMART; SM00103; ALBUMIN; 3.
 DR PROSITE; PS00212; ALBUMIN; 3.
 KW Hypothetical protein.
 SQ SEQUENCE 609 AA; 69366 MW; F88FF61DD242B818 CRC64;

Query Match 87.1%; Score 3108; DB 2; Length 609;
 Best Local Similarity 100.0%; Pred. No. 6.7e-190;
 Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 89 RDAHSEVAHRRPKDAGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEFAKTCVADBSA 148
 |||||
 DB 24 RDAHSEVAHRRPKDAGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEFAKTCVADBSA 83
 149 ENCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKOEPERNECFLQHKDNPMLPRLVPE 208
 DB 84 ENCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKOEPERNECFLQHKDNPMLPRLVPE 143
 209 VDMCTAFHDNETFLKYLVEIARRHPYFYAPPELLFPAKRYKAAFTECCQAADKAACL 268
 144 VDMCTAFHDNETFLKYLVEIARRHPYFYAPPELLFPAKRYKAAFTECCQAADKAACL 203
 QY 269 PKLDELRLDEGKASSAKORLKCSLQKFGERAFAKAVARLSQRFPAFAEAVSKLVTDLT 328
 DB 204 PKLDELRLDEGKASSAKORLKCSLQKFGERAFAKAVARLSQRFPAFAEAVSKLVTDLT 263
 QY 329 KYHTECGHDLLECADRDADIAKYICENODSISSKLKECCCKPLKESHCIAEVENDEMP 388
 DB 264 KYHTECGHDLLECADRDADIAKYICENODSISSKLKECCCKPLKESHCIAEVENDEMP 323
 QY 389 ADLPISLAADFVESKDVCKNVAEAKDVLGMFLYEYARRHPDYSVLLRLAKTYETTLEK 448
 DB 324 ADLPISLAADFVESKDVCKNVAEAKDVLGMFLYEYARRHPDYSVLLRLAKTYETTLEK 383
 QY 449 CCAAADPHCECYAKVPEFEPFLVEEPONLIKONCELEFQJGEYKFOALLVRYTKKVPQVS 508
 DB 384 CCAAADPHCECYAKVPEFEPFLVEEPONLIKONCELEFQJGEYKFOALLVRYTKKVPQVS 443
 QY 509 TPTLVEVSNNLKGVSCKCKHPKAPKMPCAEDYLSVNLQCLVLEHKTVPVSDRYTKCCTE 568
 DB 444 TPTLVEVSNNLKGVSCKCKHPKAPKMPCAEDYLSVNLQCLVLEHKTVPVSDRYTKCCTE 503
 QY 569 SLVNRPPCFSALEVDETYVPKEFNAETFTFHADICTLSEKERQIKKQALVELVGHKRPXA 628
 DB 504 SLVNRPPCFSALEVDETYVPKEFNAETFTFHADICTLSEKERQIKKQALVELVGHKRPXA 563
 QY 629 TTEQLKAVNDPFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 674
 DB 564 TTEQLKAVNDPFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 609

RESULT 4
 Q68DN5_HUMAN PRELIMINARY; PRT; 609 AA.

AC 068DN5;
 DT 25-OCT-2004 (TrEMBLrel. 28, Created)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
 DE 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
 DE Hypothetical protein DKF2p779N1935.
 GN Name=DKF2p779N1935;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;
 OC Homo.
 NCBI_TaxID=9606;
 RN (1)
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Liver;
 RA Bloeker H., Beecher M., Brandt P., Mewes H.W., Weil B., Amid C.,
 RA Osanger A., Pobo G., Han M., Wiemann S.;
 RL Submitted (Aug-2004) to the EMBL/GenBank/DBJ databases.
 EMBL; CR749331; CAH18185.1; -; mRNA.

DR SMR; Q68DN5; 26-608.
 DR GO; GO:0005615; C:extracellular space; IEA.
 DR GO; GO:0005386; F:carrier activity; IEA.
 DR GO; GO:0006810; P:transport; IEA.
 DR InterPro; IPR001703; AlphaFoldprot.
 DR InterPro; IPR000264; Serum albumin.
 DR Pfam; PF00273; Serum albumin; 3.
 DR PRINTS; PR00803; AFTOPROTEIN.
 DR PRINTS; PR00802; SERUMALBUMIN.
 DR ProdOm; PD002486; Serum albumin; 1.
 DR SMART; SM00103; ALBUMIN; 3.
 DR PROSITE; PS00212; ALBUMIN; 3.
 KW Hypothetical protein.
 SQ SEQUENCE 609 AA; 69402 MW; 3BA3AF17BF99E94 CRC64;

Query Match 86.4%; Score 3084; DB 2; Length 609;
 Best Local Similarity 99.1%; Pred. No. 2.3e-188;
 Matches 581; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 89 RDAHSEVAHRRPKDAGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEFAKTCVADBSA 148
 |||||
 DB 24 RDAHSEVAHRRPKDAGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEFAKTCVADBSA 83
 149 ENCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKOEPERNECFLQHKDNPMLPRLVPE 208
 DB 84 ENCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKOEPERNECFLQHKDNPMLPRLVPE 143
 QY 209 VDMCTAFHDNETFLKYLVEIARRHPYFYAPPELLFPAKRYKAAFTECCQAADKAACL 268
 DB 144 VDMCTAFHDNETFLKYLVEIARRHPYFYAPPELLFPAKRYKAAFTECCQAADKAACL 203
 QY 269 PKLDELRLDEGKASSAKORLKCSLQKFGERAFAKAVARLSQRFPAFAEAVSKLVTDLT 328
 DB 204 PKLDELRLDEGKASSAKORLKCSLQKFGERAFAKAVARLSQRFPAFAEAVSKLVTDLT 263
 QY 329 KYHTECGHDLLECADRDADIAKYICENODSISSKLKECCCKPLKESHCIAEVENDEMP 388
 DB 264 KYHTECGHDLLECADRDADIAKYICENODSISSKLKECCCKPLKESHCIAEVENDEMP 323
 QY 389 ADLPISLAADFVESKDVCKNVAEAKDVLGMFLYEYARRHPDYSVLLRLAKTYETTLEK 448
 DB 324 ADLPISLAADFVESKDVCKNVAEAKDVLGMFLYEYARRHPDYSVLLRLAKTYETTLEK 383
 QY 449 CCAAADPHCECYAKVPEFEPFLVEEPONLIKONCELEFQJGEYKFOALLVRYTKKVPQVS 508
 DB 384 CCAAADPHCECYAKVPEFEPFLVEEPONLIKONCELEFQJGEYKFOALLVRYTKKVPQVS 443
 QY 509 TPTLVEVSNNLKGVSCKCKHPKAPKMPCAEDYLSVNLQCLVLEHKTVPVSDRYTKCCTE 568
 DB 444 TPTLVEVSNNLKGVSCKCKHPKAPKMPCAEDYLSVNLQCLVLEHKTVPVSDRYTKCCTE 503
 QY 569 SLVNRPPCFSALEVDETYVPKEFNAETFTFHADICTLSEKERQIKKQALVELVGHKRPXA 628
 DB 504 SLVNRPPCFSALEVDETYVPKEFNAETFTFHADICTLSEKERQIKKQALVELVGHKRPXA 563
 QY 629 TTEQLKAVNDPFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 674
 DB 564 TTEQLKAVNDPFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 609

RESULT 5

Q56G89_HUMAN PRELIMINARY; PRT; 609 AA.

AC 056G89;
 DT 10-MAY-2005 (TrEMBLrel. 30, Created)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
 DE 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
 DE Serum albumin.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;
 OC Homo.
 NCBI_TaxID=9606;

RN [1]
 NCBI:EMBL:U000000000.1
 RA Li H., Zhang Y., Li X., Yang R., Tang S., Zhang M., Hua S.;
 RA "Homo sapiens serum albumin (HSA) cDNA sequence."
 RA Submitted (MAR-2005) to the EMBL/GenBank/DBJ databases.
 DR EMBL:AY960291; AA:63425.1; -; mRNA.
 SO SEQUENCE 609 AA; 69084 MW; 39B0CB1217A99C CRC64;
 Query Match 86.1%; Score 3073; DB 2; Length 609;
 Best Local Similarity 99.1%; Pred. No. 1.1e-187;
 Matches 581; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
 QY 89 RDAHKEVVAHREFDQGEENFKALVLIAPAYIQOCCPEHVKLVNVEVTEPAKTCVADESA 148
 DB 24 RDAHKEVVAHREFDQGEENFKALVLIAPAYIQOCCPEHVKLVNVEVTEPAKTCVADESA 83
 QY 149 ENCDKSLHTLFGDKLCTVATLRETGYEMADCCAKOBERNECFLOHKDNPMLPRLVPRP 208
 DB 84 ENCDKSLHTLFGDKLCTVATLRETGYEMADCCAKOBERNECFLOHKDNPMLPRLVPRP 143
 QY 209 VDVWCTAFHNDNEETFLKYLIEIARRHPYFYAPPELLFFPAKRYKAATTECCOAAADKAAACL 268
 DB 144 VDVWCTAFHNDNEETFLKYLIEIARRHPYFYAPPELLFFPAKRYKAATTECCOAAADKAAACL 203
 QY 269 PKLDELREDEGKASSAKORLKCASIQKGERAFKMAVAARLSQRPFAEPFAVSKLVTDLT 328
 DB 204 PKLDELREDEGKASSAKORLKCASIQKGERAFKMAVAARLSQRPFAEPFAVSKLVTDLT 263
 QY 329 KVAITECHGDLLECADRADLAKYICENODSISSKLKECCERPLLEKSHCIAEVENDEMP 388
 DB 264 KVAITECHGDLLECADRADLAKYICENODSISSKLKECCERPLLEKSHCIAEVENDEMP 323
 QY 389 ADLPSLAADVESKDVCKNAYEAKDVFGLMFLYEYARRHPDYSVLLRLAKYETTTLEK 448
 DB 324 ADLPSLAADVESKDVCKNAYEAKDVFGLMFLYEYARRHPDYSVLLRLAKYETTTLEK 383
 QY 449 CCAADPHCECYAKVDFEFKPLVEBPONLIKONCELEQGEYKONALLVRYTKVQVQS 508
 DB 384 CCAADPHCECYAKVDFEFKPLVEBPONLIKONCELEQGEYKONALLVRYTKVQVQS 443
 QY 509 TPTLVEVSRLGKVGSKCCGHPKAPCAEDYLSTVLANOLCVLHEKTPVSDRYTCCCTE 568
 DB 444 TPTLVEVSRLGKVGSKCCGHPKAPCAEDYLSTVLANOLCVLHEKTPVSDRYTCCCTE 503
 QY 569 SLVNRBPCFSALFVDETYVPKEFNAETFTPHADICTLSEKERQIKKQTALVELVKHPKA 628
 DB 504 SLVNRBPCFSALFVDETYVPKEFNAETFTPHADICTLSEKERQIKKQTALVELVKHPKA 563
 QY 629 TKEQLKAVMDPFAAFVEKCCAKADKCTCPAEBGKQVVAASQAALGL 674
 DB 564 TKEQLKAVMDPFAAFVEKCCAKADKCTCPAEBGKQVVAASQAALGL 609
 RESULT 6
 QSD0D7_HUMAN PRELIMINARY; PRT; 627 AA.
 ID QSD0D7_HUMAN PRELIMINARY; PRT; 627 AA.
 AC QSD0D7;
 DT 10-MAY-2005 (Tremblrel. 30, Created)
 DT 10-MAY-2005 (Tremblrel. 30, Last sequence update)
 DT 10-MAY-2005 (Tremblrel. 30, Last annotation update)
 DE A1B protein.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;
 OC Homo.
 NCBI_TaxID=9606;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.P., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.U., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullighy S.J.,
 RA Bosak S.A., McKernan P.J., McKernan K.U., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Huliyk S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahy J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whitting M., Madan A., Young A.C., Shcherchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butlerfield Y.S.N., Krzywinski M.I., Skalska U., Smalins D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.W., Marra M.A.;
 RA "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
 RN [2]
 RP NCBI:EMBL:U000000000.1
 RC TISSUE=Liver;
 RA Strausberg R.;
 RA Submitted (NOV-2002) to the EMBL/GenBank/DBJ databases.
 DR EMBL:BC039235; AA:39235.1; -; mRNA.
 SO SEQUENCE 627 AA; 71704 MW; 271C97408D7EDD04 CRC64;
 Query Match 85.9%; Score 3066; DB 2; Length 627;
 Best Local Similarity 98.5%; Pred. No. 3.3e-187;
 Matches 577; Conservative 1; Mismatches 8; Indels 0; Gaps 0;
 QY 89 RDAHKEVVAHREFDQGEENFKALVLIAPAYIQOCCPEHVKLVNVEVTEPAKTCVADESA 148
 DB 24 RDAHKEVVAHREFDQGEENFKALVLIAPAYIQOCCPEHVKLVNVEVTEPAKTCVADESA 83
 QY 149 ENCDKSLHTLFGDKLCTVATLRETGYEMADCCAKOBERNECFLOHKDNPMLPRLVPRP 208
 DB 84 ENCDKSLHTLFGDKLCTVATLRETGYEMADCCAKOBERNECFLOHKDNPMLPRLVPRP 143
 QY 209 VDVWCTAFHNDNEETFLKYLIEIARRHPYFYAPPELLFFPAKRYKAATTECCOAAADKAAACL 268
 DB 144 VDVWCTAFHNDNEETFLKYLIEIARRHPYFYAPPELLFFPAKRYKAATTECCOAAADKAAACL 203
 QY 269 PKLDELREDEGKASSAKORLKCASIQKGERAFKMAVAARLSQRPFAEPFAVSKLVTDLT 328
 DB 204 PKLDELREDEGKASSAKORLKCASIQKGERAFKMAVAARLSQRPFAEPFAVSKLVTDLT 263
 QY 329 KVAITECHGDLLECADRADLAKYICENODSISSKLKECCERPLLEKSHCIAEVENDEMP 388
 DB 264 KVAITECHGDLLECADRADLAKYICENODSISSKLKECCERPLLEKSHCIAEVENDEMP 323
 QY 389 ADLPSLAADVESKDVCKNAYEAKDVFGLMFLYEYARRHPDYSVLLRLAKYETTTLEK 448
 DB 324 ADLPSLAADVESKDVCKNAYEAKDVFGLMFLYEYARRHPDYSVLLRLAKYETTTLEK 383
 QY 449 CCAADPHCECYAKVDFEFKPLVEBPONLIKONCELEQGEYKONALLVRYTKVQVQS 508
 DB 384 CCAADPHCECYAKVDFEFKPLVEBPONLIKONCELEQGEYKONALLVRYTKVQVQS 443
 QY 509 TPTLVEVSRLGKVGSKCCGHPKAPCAEDYLSTVLANOLCVLHEKTPVSDRYTCCCTE 568
 DB 444 TPTLVEVSRLGKVGSKCCGHPKAPCAEDYLSTVLANOLCVLHEKTPVSDRYTCCCTE 503
 QY 569 SLVNRBPCFSALFVDETYVPKEFNAETFTPHADICTLSEKERQIKKQTALVELVKHPKA 628
 DB 504 SLVNRBPCFSALFVDETYVPKEFNAETFTPHADICTLSEKERQIKKQTALVELVKHPKA 563
 QY 629 TKEQLKAVMDPFAAFVEKCCAKADKCTCPAEBGKQVVAASQAALGL 674
 DB 564 TKEQLKAVMDPFAAFVEKCCAKADKCTCPAEBGKQVVAASQAALGL 609
 RESULT 7
 ALBU_MACMU STANDARD; PRT; 600 AA.
 ID ALBU_MACMU STANDARD; PRT; 600 AA.

AC Q28522; 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Serum albumin precursor (Fragment).
 GN Name=Alb;
 OS Macaca mulatta (Rhesus macaque).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
 OC Cercopithecoidea; Cercopithecinae; Macaca.
 OX NCBI_TaxID=9544;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=93211971; PubMed=8460152;
 RA Watkins S.A., Sakamoto Y., Madison J.M., Davis E.M., Smith D.G.,
 RT Dwyer J., Putnam F.W.;
 RT "cDNA and protein sequence of polymorphic macaque albumins that differ
 in bilirubin binding.";
 RL Proc. Natl. Acad. Sci. U.S.A. 90:2409-2413 (1993).
 CC -1- FUNCTION: Serum albumin, the main protein of plasma, has a good
 binding capacity for water, Ca(2+), Na(+), K(+), fatty acids,
 hormones, bilirubin and drugs. Its main function is the regulation
 of the colloidal osmotic pressure of blood.
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: Plasma.
 CC -1- SIMILARITY: Belongs to the Alb/AFp/VDB family.
 CC -1- SIMILARITY: Contains 3 albumin domains.
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 between the Swiss Institute of Bioinformatics and the EMBL outstation -
 the European Bioinformatics Institute. There are no restrictions on its
 use as long as its content is in no way modified and this statement is not
 removed.
 CC -----
 DR EMBL, M90463; AAA36906.1; --; mRNA.
 DR PIR, A47391; A47391.
 DR HSSP, P02768; 1E7B.
 DR SMR, Q28522; 19-600.
 DR InterPro: IPR001703; Alphafetoprot.
 DR InterPro: IPR000264; Serum albumin.
 DR Pfam: PF00273; Serum albumin_3.
 DR PRINTS, PR00803; AFETOPROTEIN.
 DR PRODOM, PD002486; SERDALBUMIN.
 DR PRODOM, PD002486; Serum albumin.
 DR SMART, SM00103; ALBUMIN; 3.
 DR PROSITE, PS00212; ALBUMIN; 3.
 KM Copper; Lipid-binding; Metal-binding; Repeat; Signal.
 FT SIGNAL 10
 FT PROPEP 11
 FT CHAIN 17
 FT DOMAIN 17 600
 FT DOMAIN 17 197
 FT DOMAIN 204 389
 FT DOMAIN 396 587
 FT METAL 19
 FT BINDING 256
 FT BINDING 69 78
 FT DISULFID 91 107
 FT DISULFID 106 117
 FT DISULFID 140 185
 FT DISULFID 184 193
 FT DISULFID 216 262
 FT DISULFID 261 295
 FT DISULFID 281 295
 FT DISULFID 294 305
 FT DISULFID 332 377
 FT DISULFID 376 385
 FT DISULFID 408 454
 FT DISULFID 453 464
 FT DISULFID 477 493
 FT DISULFID 492 503
 FT DISULFID 530 575
 FT DISULFID 574 583
 FT NON_TER 1

SQ SEQUENCE 600 AA; 67881 MW; E45C871A670E740B CRC64;
 Query Match 82.6%; Score 2947; DB 1; Length 600;
 Best Local Similarity 93.5%; Pred. No. 1.2e-179;
 Matches 546; Conservative 23; Mismatches 15; Indels 0; Gaps 0;
 QY 89 RDAHSEVAHFRPDJGEENFKALVLIAPAOYIQCCPFEDHVKLVNEVTEFATCVADBSA 148
 DB 16 RDTHSEVAHFRPDJGEENFKALVLIAPAOYIQCCPFEDHVKLVNEVTEFATCVADBSA 75
 QY 149 ENCDKSIHTLFGDKICTVAATLRETYGEMADCCAKOPEPNECFLOHKDNPPLPLVPE 208
 DB 76 ENCDKSLHTLFGDKICTVAATLRETYGEMADCCAKOPEPNECFLOHKDNPPLPLVPE 135
 QY 209 VDMCTAFADNDETEPKKLYEIAARHPYFVAPBELLFPAKRYKAAFTTECCOADAACLL 268
 DB 136 VDMCTAFADNDETEPKKLYEIAARHPYFVAPBELLFPAKRYKAAFTTECCOADAACLL 195
 QY 269 PFLDELDEGKASAKORLKASLOKFERAKVAVARLSQRFPAEFAEYSKLVTDLT 328
 DB 196 PFLDELDEGKASAKORLKASLOKFERAKVAVARLSQRFPAEFAEYSKLVTDLT 255
 QY 329 KYHTSCCHGDLLECADDRADLAKYICENODSISKLKECCPKYLEKSHCIAVENDEMP 388
 DB 256 KYHTSCCHGDLLECADDRADLAKYICENODSISKLKECCPKYLEKSHCIAVENDEMP 315
 QY 389 ADLPISLAADPVESKQVCKVYAEAKDVFLGMPLEYEARHPDYSVVLLRLAKTYETLEK 448
 DB 316 ADLPISLAADPVESKQVCKVYAEAKDVFLGMPLEYEARHPDYSVVLLRLAKTYETLEK 375
 QY 449 CCAADPHECVAKVFDEPKLVEEPONTIKONCELPBOLGEYKFNALLVRYTKYPOVS 508
 DB 376 CCAADPHECVAKVFDEPKLVEEPONTIKONCELPBOLGEYKFNALLVRYTKYPOVS 435
 QY 509 TPTLVEVSNTGKVSCKCKHPEAKRMPCAEYLSVTLNQCVLHEKTPVSRVTKCCE 568
 DB 436 TPTLVEVSNTGKVSCKCKHPEAKRMPCAEYLSVTLNQCVLHEKTPVSRVTKCCE 495
 QY 569 SLVNRPPCSALEVDETVPEKFNATETFFHADICTLSSEKROIKQTLVELVGHKPKA 628
 DB 496 SLVNRPPCSALEVDETVPEKFNATETFFHADICTLSSEKROIKQTLVELVGHKPKA 555
 QY 629 TTEOLKAVMDPFAVFEKCKCKADDETCTPAESEGKLVAAQSALL 672
 DB 556 TTEOLKAVMDPFAVFEKCKCKADDETCTPAESEGKLVAAQSALL 599
 RESULT 8
 ID ALBU_FELCA STANDARD; PRT; 608 AA.
 AC P49064; Q7YSG3;
 DT 01-FEB-1996 (Rel. 33, Created)
 DT 01-FEB-1996 (Rel. 33, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Serum albumin precursor (Allergen Fel d 2).
 GN Name=Alb;
 OS Felis silvestris catus (Cat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
 OC Felinae; Felis.
 OX NCBI_TaxID=9685;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=96194824; PubMed=8647469; DOI=10.1016/0378-1119(95)00851-9;
 RT Hilger C., Grigioni F., Kohlen M., Hentges F.;
 RL "Sequence of the gene encoding cat (Felis domesticus) serum albumin.";
 RN [2]
 RP NUCLEOTIDE SEQUENCE OF 25-608.
 RC TISSUE=Liver;
 RA Reininger R., Swoboda I., Bohle B., Hauswirth A.W., Valent P.,
 RA Rumpold H., Valenta R., Splitzauer S.;
 RT "Escherichia coli expression and purification of recombinant cat

RT albumin: IGE recognition, induction of basophil activation and
 RT lymphoproliferative responses in atopic patients.";
 RL Submitted (May-2002) to the EMBL/GenBank/DBJ databases.
 CC -1- FUNCTION: Serum albumin, the main protein of plasma, has a good
 CC binding capacity for water, Ca(2+), Na(+), K(+), fatty acids,
 CC hormones, bilirubin and drugs. Its main function is the regulation
 CC of the colloidal osmotic pressure of blood.
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: Plasma.
 CC -1- ALLERGEN: Causes an allergic reaction in human.
 CC -1- SIMILARITY: Belongs to the ALB/AF/VPB family.
 CC -1- SIMILARITY: Contains 3 albumin domains.
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 DR EMBL; X04842; CA59279.1; -; mRNA.
 DR EMBL; AJ487677; CAD32275.1; -; mRNA.
 DR PIR; JC4660; S57632.
 DR HSSP; P02768; 1B7B.
 DR SMR; P49064; 26-608.
 DR InterPro; IPR001703; Alphafetoprot.
 DR InterPro; IPR000264; Serum_albumin.
 DR Pfam; PF00273; Serum_albumin; 3.
 DR PRINTS; PR00803; AFETOPROTEIN.
 DR PRINTS; PR00802; SERUMALBUMIN.
 DR ProDom; PD002486; Serum_albumin; 1.
 DR SMART; SM00103; ALBUMIN; 3.
 DR DR POSITIVE; PS00212; ALBUMIN; 3.
 KW Allergen; Copper; Lipid-binding; Metal-binding; Repeat; Signal.
 FT SIGNAL 1 18 By similarity.
 FT PROPEP 19 24 By similarity.
 FT CHAIN 25 608 Serum albumin.
 FT DOMAIN 212 397 Albumin 1.
 FT DOMAIN 404 595 Albumin 2.
 FT METAL 27 27 Albumin 3.
 FT DISULFID 77 86 Copper.
 FT DISULFID 99 115 By similarity.
 FT DISULFID 114 125 By similarity.
 FT DISULFID 148 193 By similarity.
 FT DISULFID 192 201 By similarity.
 FT DISULFID 224 270 By similarity.
 FT DISULFID 269 277 By similarity.
 FT DISULFID 289 303 By similarity.
 FT DISULFID 302 313 By similarity.
 FT DISULFID 340 385 By similarity.
 FT DISULFID 384 393 By similarity.
 FT DISULFID 416 462 By similarity.
 FT DISULFID 461 472 By similarity.
 FT DISULFID 485 501 By similarity.
 FT DISULFID 500 511 By similarity.
 FT DISULFID 538 583 By similarity.
 FT DISULFID 582 591 By similarity.
 FT DISULFID 591 75 By similarity.
 FT CONFLICT 94 94 L -> N (in Ref. 2).
 FT CONFLICT 94 94 L -> F (in Ref. 2).
 FT CONFLICT 186 186 K -> R (in Ref. 2).
 FT CONFLICT 251 251 E -> D (in Ref. 2).
 FT CONFLICT 282 282 A -> B (in Ref. 2).
 FT CONFLICT 331 331 V -> A (in Ref. 2).
 SQ SEQUENCE 608 AA; 68659 MW; 07B629CAC5F60E5F CRC64;
 Query March 73.6%; Score 2627; DB 1; Length 608;
 Best Local Similarity 80.1%; Pred. No. 3.2e-159;
 Matches 483; Conservative 53; Mismatches 57; Indels 10; Gaps 1;
 Oy 70 SSYLEGQAKSEFIAMLVKGRDAHKSEVAMRFKDGSEENFKALVLIAPAOYLQCCPFEDHV 129
 Db 15 SAYSRG-----VTRRAHKGSEIARHNDLGEHFRGLVVAVTSQYVLCQCCPFEDHV 64

Oy 130 KLWNEVTEFAKTCVADSEANCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNE 189
 Db 65 KLVNVTTERFAKCVADQSAANCEKSLHLLGDKLCTVASLIRKYGMAOCCKEBERNE 124
 Oy 190 CFLQHKDNPMLRLVPRPVDMCTAFHDNETFLKTYIETARHHPYTAPELLFPAR 249
 Db 125 CFLQHKDNPFGOLVTPPADAMCTAFHNEBPRFLGKTYETARRHPYTAPELLYAE 184
 Oy 250 YRAAFTECCQADKAACTLPKLDLREDEKASSAKORLTKCASLOKGEERAFAMAVARLS 309
 Db 185 YGVFTECCQADKAACTLPKVDALREKVLASSAKERLTKCASLOKGEERAFAMAVARLS 244
 Oy 310 QRFPAKFAEVSCLVTLTKVATECCGDLLECAADRADLAKYICENODISSKLECCG 369
 Db 245 QRFPAKFAEISCLVTLDAKIHKECHGDLLECAADRADLAKYICENODISSKLECCG 304
 Oy 370 KPLLEKSHCIAYENDEMADLPGLAADVYESKDVCKRYAAKADVPFGMFLYETARRHD 429
 Db 305 KPLLEKSHCISEVERDELADLPPLAVDVEDEKEVCNKYQEAADVPFGMFLYETARRHD 364
 Oy 430 YSVVLLRLAKTYETLLEKCAAADPHECYAVPDEFKPLVEBPOLIKONCELPEOLGE 489
 Db 365 YSVVLLRLAKTYEATLEKCAADDPACTAHVPDEFKPLVEBPANLVKNCLEPKLGE 424
 Oy 490 YKFNALVRYTKVPQVSTPLVVEYSRMIGKVGSKCKHPPAKRMPCAEDYLSVVLNQL 549
 Db 425 YGQNALLVRYTKVPQVSTPLVVEYSRSLGKVGSKCKHPPAKRMPCAEDYLSVVLNQL 484
 Oy 550 CVLHEKTPVSDRYTKCTESLVNRRPCFSALAEVDFTYVPEKFNATFTTHADICTSEK 609
 Db 485 CVLHEKTPVSEKRYTKCTESLVNRRPCFSALQVDEFTYVPEKFSAEFTTHADICTSEK 544
 Oy 610 RQIKKQTAVALVYKHPKATKTKQTKAVMDPFAFVYKCKCKADKXCPAEBGKLVAAASQ 669
 Db 545 RQIKKQSAVALVYKHPKATKTKQTKAVMDPFSFVYKCAAEDEKACFAEBGKLVAAASQ 604
 Oy 670 AAL 672
 Db 605 AAL 607
 RESULT 9
 ID ALBU CANFA STANDARD; PRT; 608 AA.
 AC P49822; 077705; Q9T5Z4;
 DT 01-OCT-1996 (Rel. 36, Created)
 DT 01-FEB-2005 (Rel. 44, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Serum albumin precursor (Allergen Can f 3).
 GN Name=ALB;
 OS Canis familiaris (Dog).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
 OC Canis.
 OC NCBI_TaxID=9615;
 RN [1]
 RP NUCLEOTIDE SEQUENCE [mRNA].
 RC STRAIN=Beagle; TISSUE=Liver;
 RA Hliger C.;
 RL Submitted (MAR-1999) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Liver;
 RA MEDLINE=2018667; PubMed=10669848; DOI=10.1016/S0091-6749(00)90077-0;
 RA Pandjaitan B., Swoboda I., Brandesjky-Pichler F., Rumpold H.,
 RA Valenta R., Splitzauer S.;
 RT "Escherichia coli expression and purification of recombinant dog
 RT albumin, a cross-reactive animal allergen.";
 RL J. Allergy Clin. Immunol. 105:279-285(2000).
 RN [3]
 RP NUCLEOTIDE SEQUENCE [mRNA].
 RC STRAIN=Beagle; TISSUE=Liver;
 RA Miyake M., Okazaki M., Iwabuchi S.;

RT "Isolation of a cDNA encoding canine serum albumin.";
 RN Submitted (Aug-2002) to the EMBL/GenBank/DBJ databases.
 RN [4]
 RP PROTEIN SEQUENCE OF 25-48.
 RX MEDLINE=75011422; PubMed=4414013;
 RA Dixon J.W., Sarkar B.;
 RT "Isolation, amino acid sequence and copper(II)-binding properties of
 RL peptide (1-24) of dog serum albumin."
 RN J. Biol. Chem. 249:5872-5877(1974).
 RN [5]
 RP PROTEIN SEQUENCE OF 25-38.
 RC TISSUE=Heart;
 RX MEDLINE=98163340; PubMed=9504812;
 RA Dunn M.J., Corbett J.M., Wheeler C.H.;
 RT "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
 RL dog heart proteins."
 RN Electrophoresis 18:2795-2802(1997).
 RN [6]
 RP NUCLEOTIDE SEQUENCE OF 215-478.
 RC TISSUE=Salivary gland;
 RX MEDLINE=94201492; PubMed=7512102;
 RA Spitzauer S., Schweiger C., Speer W.R., Pandjaitan B., Valent P.,
 RT "Muehl S., Ehner C., Scheiner O., Kraft D., Rumpold H.;
 RL Molecular characterization of dog albumin as a cross-reactive
 RT allergen."
 RN J. Allergy Clin. Immunol. 93:614-627(1994).
 CC -1- FUNCTION: Serum albumin, the main protein of plasma, has a good
 CC binding capacity for water, Ca(2+), Na(+), K(+), fatty acids,
 CC hormones, bilirubin and drugs. Its main function is the regulation
 CC of the colloidal osmotic pressure of blood.
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: Plasma.
 CC -1- ALLERGEN: Causes an allergic reaction in human.
 CC -1- SIMILARITY: Belongs to the ALB/APF/VDB family.
 CC -1- SIMILARITY: Contains 3 albumin domains.
 CC -----
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 CC -----
 DR EMBL, AJ133489; CAB64867.1; -; mRNA.
 DR EMBL, Y17737; CAAY6841.1; -; mRNA.
 DR EMBL, AB090854; BAC10663.1; -; mRNA.
 DR EMBL, S72946; AAB30434.1; -; mRNA.
 DR HSSP, P02768; 1E7E.
 DR SMR, P49822; 26-607.
 DR HSC-2DPAGE, P49822; DOG.
 DR Ensembl, ENSCARG0000003016; Canis familiaris.
 DR InterPro: IPR000264; Serum albumin.
 DR Pfam: PF00273; Serum albumin; 3.
 DR PRINTS; PR00802; SERUMALBUMIN.
 DR ProDom; PD002486; Serum albumin; 1.
 DR SMART; SM0103; ALBUMIN; 3.
 DR PROSITE; PS00212; ALBUMIN; 3.
 DR Allergen; Copper; Direct protein sequencing; Lipid-binding;
 KW Metal-binding; Repeat; Signal.
 FT SIGNAL 1 18 Potential.
 FT PROPEP 19 24
 FT CHAIN 25 608 Serum albumin.
 FT DOMAIN 25 205 Albumin 1.
 FT DOMAIN 212 397 Albumin 2.
 FT DOMAIN 404 595 Albumin 3.
 FT METAL 27 27 Copper (By similarity).
 FT DISULFID 77 86 By similarity.
 FT DISULFID 99 115 By similarity.
 FT DISULFID 114 125 By similarity.
 FT DISULFID 148 193 By similarity.
 FT DISULFID 192 201 By similarity.
 FT DISULFID 224 270 By similarity.
 FT DISULFID 269 277 By similarity.
 FT DISULFID 289 303 By similarity.

FT DISULFID 302 313 By similarity.
 FT DISULFID 340 385 By similarity.
 FT DISULFID 384 393 By similarity.
 FT DISULFID 416 462 By similarity.
 FT DISULFID 461 472 By similarity.
 FT DISULFID 485 501 By similarity.
 FT DISULFID 500 511 By similarity.
 FT DISULFID 538 583 By similarity.
 FT DISULFID 582 591 By similarity.
 FT CONFLICT 1 26 MKWTFISLFLFSAYSGRLVRRRA -> MDT (in Ref. 2).
 FT CONFLICT 146 146 A -> R (in Ref. 2).
 FT CONFLICT 206 206 I -> T (in Ref. 2).
 FT CONFLICT 349 349 V -> A (in Ref. 2).
 FT CONFLICT 359 359 A -> S (in Ref. 2 and 6).
 FT CONFLICT 448 448 V -> VV (in Ref. 6).
 FT CONFLICT 474 474 E -> D (in Ref. 2 and 6).
 SQ SEQUENCE 608 AA; 68605 MW; 3DB012FFC979CF3 CRC64;
 Query Match 72.1%; Score 2574; DB 1; Length 608;
 Best Local Similarity 78.4%; Pred. No. 7,8e-156;
 Matches 473; Conservative 57; Mismatches 63; Indels 10; Gaps 2;
 QY 70 SSYLEGQAKERIAMLVYGRDAHKEVNAHREFDLSGEHFKALVTLAFOYIQQCFEHHV 129
 DB 15 SAYSRG-----LVLR-REAYKSEIARHYNDLGEHFRGLVAVFSQYLQCCPEEDHV 64
 QY 130 KLVNVEPFAKTCVADSEANCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNE 189
 DB 65 KLAKEVTEPAKCAABESGANDKSLHTLFGDKLCTVASLRKYDMDADCCKEKDPDNE 124
 QY 190 CFLQHKDNDPNLRLVLRBEVDVMTAFHNDSEETFKKLYLEIARRHPYFVABELLFPAKR 249
 DB 125 CFLAKHDNDPGRPPVLADEPDALCAAFODNEQLFGKYLEIARRHPYFVABELLYAAQQ 184
 QY 250 YKAATTECCQADKAAICLPKDELDRDGKASSAQRLLKASLQKFGERRAFAMAVARLS 309
 DB 185 YGVGAEECCQADKAAICGPKLEALREKVLSSAKERRKASLQKFGERRAFAMAVARLS 244
 QY 310 GRFPRAEFAVSKLVTDLTKVTECCGHDLLECADRDADLAKYICENODSISKLEKCE 369
 DB 245 GRFPKADPRAISKVITDLTKVKECCGHDLLECADRDADLAKYICENODSISTKLEKCCD 304
 QY 370 KELERKSHCIAEVEDNDMPADLPSLAADFVESKDYCKNYAEAKDVFLLGMFLYVARHPD 429
 DB 305 KVLLEKSGCIAEVEDNDLPGLPSLAADFVEDKECKNYGEAKDVFLLGTFLEYVARHPB 364
 QY 430 YSVVTLRLAKTYETTLKCCCAADPHACIYAVPEFPVLYEHPONLKONCELFEQJGE 489
 DB 365 YSVSLRLRLAKTYETTLKCCATDDPPCTYCAVLDSEFPVLYDEPQNLKYNCELEFKJGE 424
 QY 490 YKQNALLVRYTKKPOYSTPLVSVSRNLGVGSKCKCHPEAKMPCADEYLVANQL 549
 DB 425 YKQNALLVRYTKKPOYSTPLVSVSRNLGVGSKCKCHPEAKMPCADEYLVANQL 484
 QY 550 CYLAHEKTPVSDRYKCTESLVNRRPCFSALAEVDETYVPKEBNAETFFHADICTLSKE 609
 DB 485 CYLAHEKTPVSEKVTCCSBSLVNRRPCFSGLAEVDETYVPKEBNAETFFHADICTLPAE 544
 QY 610 ROIKQOTALVELVKKPKATKEQLKAVNDPRAAFYEKCKKADKDTCAEBSKCLVAASQ 669
 DB 545 KOVKQOTALVELLKKRPATDEQLKTVAGDFGAFVEKCAAEKNGCFSEBGPCLVAAAQ 604
 QY 670 AAL 672
 DB 605 AAL 607
 RESULT 10
 Q95VB7 SCHEMA
 ID Q95VB7 SCHEMA PRELIMINARY; PRT; 608 AA.
 AC Q95VB7;
 DT 01-DEC-2001 (TrEMBLrel. 19, Created)

DT 01-DEC-2001 (TEMBL:rel. 19, Last sequence update)
 DT 01-MAR-2004 (TEMBL:rel. 26, Last annotation update)
 DE Albumin.
 OS Schistosoma mansoni (Blood fluke).
 OC Eukaryota; Metazoa; Platyhelminthes; Trematoda; Digenea; Strigeiidae;
 OC Schistosomatoidea; Schistosomatidae; Schistosoma.
 NCBI_TaxID=6183;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Oseman A., Asah H., Seadecker M.J., Loyerde P.T.;
 RL Submitted (SEP-2001) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AF418550; AL08579.1; -; mRNA.
 DR HSSP; P02768; 1HK1.
 DR SMR; O95VB7; 26-608.
 DR GO; GO:0005615; C:extracellular space; IEA.
 DR GO; GO:0005386; F:carrier activity; IEA.
 DR GO; GO:0008289; F:Lipid binding; IEA.
 DR GO; GO:0006810; P:transport; IEA.
 DR InterPro; IPR001703; Alphafetoprot.
 DR InterPro; IPR000264; Serum albumin.
 DR Pfam; PF00273; Serum albumin; 3.
 DR PRINTS; PR00803; APELOPROTEIN.
 DR PRINTS; PR00802; SERUMALBUMIN.
 DR SMART; SM00103; ALBUMIN; 3.
 DR PROSITE; PS00212; ALBUMIN; 2.
 DR PROSITE; PS00212; ALBUMIN; 2.
 SQ SEQUENCE 608 AA; 68225 MW; E5EAB28E1C66E54 CRC64;

Query Match 70.1%; Score 2509; DB 2; Length 608;
 Best Local Similarity 76.4%; Pred. No. 1.1e-151;
 Matches 446; Conservative 79; Mismatches 59; Indels 0; Gaps 0;

DB 24 RDHAKSIAIRPFQDLSQHFQGLVLAISQFLQCPYEHVKLVNEVTEFAKTCVADESA 83
 89 RDHAKSIAIRPFQDLSQHFQGLVLAISQFLQCPYEHVKLVNEVTEFAKTCVADESA 148
 149 ENCDKSLHTLFGDLCVATLRETYGEMADCCAKQEPERECFLQHDNDPNLPRIVPE 208
 DB 84 ENCDKSLHTLFGDLCVATLRETYGEMADCCAKQEPERECFLQHDNDPNLPRIVPE 143
 209 VDVCTAFHNETETLKKYLIEIARRHPYPAPELLEFPAKYKAAPFECQADKAACL 268
 144 AEMACTFQENAVTFMGHLYHEVARHPYPAPELLEFPAKYKAAPFECQADKAACL 203
 269 PKIDELRDEBKASAKQRLKASLQKGEPAFKMAVAARLQSPRPKAPFAVSLVLDLT 328
 DB 204 PKIDELRDEBKASAKQRLKASLQKGEPAFKMAVAARLQSPRPKAPFAVSLVLDLT 263
 329 KVTCECHGDLLECADRADLAKYICENODSISKLKECEKPLLEKSHCIAEYENDMP 388
 DB 264 KVTCECHGDLLECADRADLAKYICENODSISKLKECEKPLLEKSHCIAEYENDMP 323
 389 ADLPSLAADFEVESKDVCKNTAEAKDVEFLGMFLYEYARRHPDYVALLRLAKTYETLEK 448
 DB 324 ADLPSLAADFEVESKDVCKNTAEAKDVEFLGMFLYEYARRHPDYVALLRLAKTYETLEK 383
 449 CCAADHECYAKYKPFDEPKLYVEEPQULIKONCLFQQLGKYKQNLVRYTKQVQVS 508
 DB 384 CCAADHECYAKYKPFDEPKLYVEEPQULIKONCLFQQLGKYKQNLVRYTKQVQVS 443
 509 TPPLVEVSRNLGKYGSCCKHPEAKRMPCAEDYSSVLANQLCVLHEKTPVSDRYTKCTE 568
 DB 444 TPPLVEVSRNLGKYGSCCKHPEAKRMPCAEDYSSVLANQLCVLHEKTPVSDRYTKCTE 503
 569 SLVNRBPCFSALFEVDETVYKGFNAKTFTHADICTLSEKROIKKQATALVELVAKHPKA 628
 DB 504 SLVNRBPCFSALFEVDETVYKGFNAKTFTHADICTLSEKROIKKQATALVELVAKHPKA 563
 629 TKKQLKAVMDPAFAVEKCCAKADKCTCPAEGKKVVAASQAL 672
 DB 564 TKKQLKAVMDPAFAVEKCCAKADKCTCPAEGKKVVAASQAL 607

ALBU_EQUAS STANDARD; PRT; 607 AA.
 ID ALBU_EQUAS
 AC OSXLE4;
 DT 01-FEB-2005 (Rel. 46, Created)
 DT 01-FEB-2005 (Rel. 46, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Serum albumin precursor.
 GN Name=ALB;
 OS Equus asinus (Donkey).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
 NCBI_TaxID=9793;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Liver;
 RA Li H., Tang Y., Pingfan R.;
 RT "Full-length cDNA sequence of serum albumin of donkey (Equus asinus)
 and its structure analysis."
 RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
 CC -1- FUNCTION: Serum albumin, the main protein of plasma, has a good
 binding capacity for water, Ca(2+), Na(+), K(+), fatty acids,
 hormones, bilirubin and drugs. Its main function is the regulation
 of the colloidal osmotic pressure of blood (By similarity).
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: Plasma.
 CC -1- SIMILARITY: Belongs to the ALB/AFIP/VDB family.
 CC -1- SIMILARITY: Contains 3 albumin domains.
 CC -----
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 use as long as its content is in no way modified and this statement is not
 removed.

CC EMBL; AY754333; AA28861.1; -; mRNA.
 CC DR SMR; O5XLE4; 27-607.
 CC DR InterPro; IPR000264; Serum albumin.
 CC DR Pfam; PF00273; Serum albumin; 3.
 CC DR PRINTS; PR00802; SERUMALBUMIN.
 CC DR ProDom; PD002486; Serum albumin; 1.
 CC DR SMART; SM00103; ALBUMIN; 3.
 CC DR PROSITE; PS00212; ALBUMIN; 3.
 CC KM Copper; Lipid-binding; Metal-binding; Repeat; Signal.
 CC FT SIGNAL 1 18 By similarity.
 CC FT PROPEP 19 24 By similarity.
 CC FT GRAIN 25 607 Serum albumin.
 CC FT DOMAIN 25 204 Albumin 1.
 CC FT DOMAIN 211 396 Albumin 2.
 CC FT DOMAIN 403 594 Albumin 3.
 CC FT METAL 27 27 Copper (By similarity).
 CC FT DISULFID 77 86 By similarity.
 CC FT DISULFID 99 115 By similarity.
 CC FT DISULFID 114 125 By similarity.
 CC FT DISULFID 147 192 By similarity.
 CC FT DISULFID 191 200 By similarity.
 CC FT DISULFID 223 269 By similarity.
 CC FT DISULFID 268 276 By similarity.
 CC FT DISULFID 288 302 By similarity.
 CC FT DISULFID 301 312 By similarity.
 CC FT DISULFID 339 384 By similarity.
 CC FT DISULFID 383 392 By similarity.
 CC FT DISULFID 415 461 By similarity.
 CC FT DISULFID 460 471 By similarity.
 CC FT DISULFID 484 500 By similarity.
 CC FT DISULFID 499 510 By similarity.
 CC FT DISULFID 537 582 By similarity.
 CC FT DISULFID 581 590 By similarity.
 SQ SEQUENCE 607 AA; 68539 MW; 7099E1E08B3C426A CRC64;

Query Match 70.1%; Score 2501.5; DB 1; Length 607;
 Best Local Similarity 75.0%; Pred. No. 3.3e-151;
 Matches 452; Conservative 71; Mismatches 69; Indels 11; Gaps 2;

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Db      218 EENFALVILIAFAQYLQOCPEFDHYLVNEVTEFAKTCVADESAENCKSLHTLFGDKLC 277
Qy      165 TVATLRETYGEMADCCAKOEPERNCEFLQKODNPNLPLVLRPEVDVMTCTAHDEETL 224
Db      278 TVATLRETYGEMADCCAKOEPERNCEFLQKODNPNLPLVLRPEVDVMTCTAHDEETL 337
Qy      225 KKYLYEIAARRHPFYAPPELLFPFAKRYKAAFTBCCQADRAACLLPDLDELDEBGRASSAK 284
Db      338 KKYLYEIAARRHPFYAPPELLFPFAKRYKAAFTBCCQADRAACLLPDLDELDEBGRASSAK 397
Qy      285 ORLKASLOKFGERAFAKAWAVARLSQRPFAEFAVSKLVTDLTGVHTCCGDLLECAD 344
Db      398 ORLKASLOKFGERAFAKAWAVARLSQRPFAEFAVSKLVTDLTGVHTCCGDLLECAD 457
Qy      345 DRADLAKYICENODSISSKLECCCEKPLEKSHCIAVENDEMPADLPGLADPVESKDY 404
Db      458 DRADLAKYICENODSISSKLECCCEKPLEKSHCIAVENDEMPADLPGLADPVESKDY 517
Qy      405 CKRYAAKOVFLGMEFLYEYARRHPDYSVLLRLAKTYETTLKCCAADPHRCYAKVPD 464
Db      518 CKRYAAKOVFLGMEFLYEYARRHPDYSVLLRLAKTYETTLKCCAADPHRCYAKVPD 577
Qy      465 EFKPLVEEPONLIKONCELFEOUGEYKFNALLVRYTKVPOVSTPTLVEVSRNLGKVS 524
Db      578 EFKPLVEEPONLIKONCELFEOUGEYKFNALLVRYTKVPOVSTPTLVEVSRNLGKVS 637
Qy      525 KCKKHEARMPCAEDYLSVNLQCLVHEKTPVSDRVTKCTESIYNRRPCFSALVEVB 584
Db      638 KCKKHEARMPCAEDYLSVNLQCLVHEKTPVSDRVTKCTESIYNRRPCFSALVEVB 697
Qy      585 TYVPKEFNAETFTFHADICTLSEKEROIKKQYALVELVGHKPKATKEOLKAVMDDEFAAV 644
Db      698 TYVPKEFNAETFTFHADICTLSEKEROIKKQYALVELVGHKPKATKEOLKAVMDDEFAAV 757
Qy      645 EKCCKADDEKTCFAEGRKLVAAQAALGL 674
Db      758 EKCCKADDEKTCFAEGRKLVAAQAALGL 787

RESULT 2
US-08-797-689-16
; Sequence 16 Application US/08797689
; Patent No. 5876969
; GENERAL INFORMATION:
; APPLICANT: Fleer, Reinhard
; APPLICANT: Fleer, Reinhard
; APPLICANT: Guitton, Jean-Dominique
; APPLICANT: Jung, Gerard
; TITLE OF INVENTION: NOVEL BIOLOGICALLY ACTIVE POLYPEPTIDES,
; TITLE OF INVENTION: PREPARATION THEREOF AND PHARMACEUTICAL COMPOSITION
; TITLE OF INVENTION: CONTAINING SAID POLYPEPTIDES
; NUMBER OF SEQUENCES: 36
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcola Road, 3C43
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: System 7.1
; SOFTWARE: Word 5.1 (Patentlin)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/797,689
; FILING DATE: 31-JAN-1997
; CLASSIFICATION: 435

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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/256,927
; FILING DATE: 28-JUL-1994
; APPLICATION NUMBER: FR 92/01064
; FILING DATE: 31-JAN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/FR93/00085
; FILING DATE: 28-JAN-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith Ph.D., Julie K.
; REGISTRATION NUMBER: P-38,619
; REFERENCE/DOCKET NUMBER: ST92006-US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (610) 454-3839
; TELEFAX: (610) 454-3808
; INFORMATION FOR SEQ ID NO: 16:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 787 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-797-689-16

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Query Match      87.2%; Score 3112.5; DB 1; Length 787;
Best Local Similarity 94.6%; Pred. No. 2.3e-279; Indels 1; Gaps 1;
Matches 596; Conservative 4; Mismatches 29;
Qy      46 QAAKEFIAMLVKGRGEGFTSDVSSYLE-GQAAKEFIAMLVKGRDAHKEVAHFKDGLG 104
Db      158 OGAMPAFASAFORRAGVIVASHLOSFEVSYRVLRHLAQPGGGDAHKEVAHFKDGLG 217
Qy      105 EENFALVILIAFAQYLQOCPEFDHYLVNEVTEFAKTCVADESAENCKSLHTLFGDKLC 164
Db      218 EENFALVILIAFAQYLQOCPEFDHYLVNEVTEFAKTCVADESAENCKSLHTLFGDKLC 277
Qy      165 TVATLRETYGEMADCCAKOEPERNCEFLQKODNPNLPLVLRPEVDVMTCTAHDEETL 224
Db      278 TVATLRETYGEMADCCAKOEPERNCEFLQKODNPNLPLVLRPEVDVMTCTAHDEETL 337
Qy      225 KKYLYEIAARRHPFYAPPELLFPFAKRYKAAFTBCCQADRAACLLPDLDELDEBGRASSAK 284
Db      338 KKYLYEIAARRHPFYAPPELLFPFAKRYKAAFTBCCQADRAACLLPDLDELDEBGRASSAK 397
Qy      285 ORLKASLOKFGERAFAKAWAVARLSQRPFAEFAVSKLVTDLTGVHTCCGDLLECAD 344
Db      398 ORLKASLOKFGERAFAKAWAVARLSQRPFAEFAVSKLVTDLTGVHTCCGDLLECAD 457
Qy      345 DRADLAKYICENODSISSKLECCCEKPLEKSHCIAVENDEMPADLPGLADPVESKDY 404
Db      458 DRADLAKYICENODSISSKLECCCEKPLEKSHCIAVENDEMPADLPGLADPVESKDY 517
Qy      405 CKRYAAKOVFLGMEFLYEYARRHPDYSVLLRLAKTYETTLKCCAADPHRCYAKVPD 464
Db      518 CKRYAAKOVFLGMEFLYEYARRHPDYSVLLRLAKTYETTLKCCAADPHRCYAKVPD 577
Qy      465 EFKPLVEEPONLIKONCELFEOUGEYKFNALLVRYTKVPOVSTPTLVEVSRNLGKVS 524
Db      578 EFKPLVEEPONLIKONCELFEOUGEYKFNALLVRYTKVPOVSTPTLVEVSRNLGKVS 637
Qy      525 KCKKHEARMPCAEDYLSVNLQCLVHEKTPVSDRVTKCTESIYNRRPCFSALVEVB 584
Db      638 KCKKHEARMPCAEDYLSVNLQCLVHEKTPVSDRVTKCTESIYNRRPCFSALVEVB 697
Qy      585 TYVPKEFNAETFTFHADICTLSEKEROIKKQYALVELVGHKPKATKEOLKAVMDDEFAAV 644
Db      698 TYVPKEFNAETFTFHADICTLSEKEROIKKQYALVELVGHKPKATKEOLKAVMDDEFAAV 757
Qy      645 EKCCKADDEKTCFAEGRKLVAAQAALGL 674
Db      758 EKCCKADDEKTCFAEGRKLVAAQAALGL 787

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RESULT 3

QY 329 KYHTECHGDLLECADRRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 388
| | | | |
DB 264 KYHTECHGDLLECADRRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 323
| | | | |
QY 389 ADLPSLAADPVESKOVCKNVAEAKDVFLGMLFYEARHPDYSVVLRLRLATYETTLK 448
| | | | |
DB 324 ADLPSLAADPVESKOVCKNVAEAKDVFLGMLFYEARHPDYSVVLRLRLATYETTLK 383
| | | | |
QY 449 CCAADPHCEYAKVDEFPPLVEEPONL I KNCCELFEOLGEYKFPONALLVRYTKKVPQVS 508
| | | | |
DB 384 CCAADPHCEYAKVDEFPPLVEEPONL I KNCCELFEOLGEYKFPONALLVRYTKKVPQVS 443
| | | | |
QY 509 TPTLVEVSNNLGVSKSCCKHPEAKRMPCAEDYLSVNLQCLVHEKTPVSDRVTKCCTE 568
| | | | |
DB 444 TPTLVEVSNNLGVSKSCCKHPEAKRMPCAEDYLSVNLQCLVHEKTPVSDRVTKCCTE 503
| | | | |
QY 569 SLVNRPPCSALEVDETYVPKEFNATFTFHADICTLSEKERQIKQOTLVELVGHKPKPA 628
| | | | |
DB 504 SLVNRPPCSALEVDETYVPKEFNATFTFHADICTLSEKERQIKQOTLVELVGHKPKPA 563
| | | | |
QY 629 TTEOLKAVMDPFAFVEKCKADDEKTCFAEBGKGLVAASQALGL 674
| | | | |
DB 564 TTEOLKAVMDPFAFVEKCKADDEKTCFAEBGKGLVAASQALGL 609
| | | | |

RESULT 5
US-09-919-039-370
; Sequence 370, Application US/09919039
; Patent No. 6727066
; GENERAL INFORMATION:
; APPLICANT: Kaser, Matthew R.
; TITLE OF INVENTION: GENES EXPRESSED IN TREATED HUMAN C3A LIVER CELL CULTURES
; FILE REFERENCE: PA-0035 US
; CURRENT APPLICATION NUMBER: US/09/919, 039
; PRIOR FILING DATE: 2002-09-09
; PRIOR APPLICATION NUMBER: 60/222, 113
; PRIOR FILING DATE: 2000-07-28
; NUMBER OF SEQ ID NOS: 401
; SOFTWARE: PERL Program
; SEQ ID NO 370
; LENGTH: 609
; TYPE: PRF
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. 6727066 088957CD1
US-09-919-039-370

Query Match 87.1%; Score 3108; DB 2; Length 609;
Best Local Similarity 100.0%; Pced. No. 4,1e-279;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 89 RDAHSEVAHREKDLGSENFKALVLTAFAYILOQCPEDHVKLVNEVTEPAKTCVADESA 148
| | | | |
DB 24 RDAHSEVAHREKDLGSENFKALVLTAFAYILOQCPEDHVKLVNEVTEPAKTCVADESA 83
| | | | |
QY 149 ENCDKSLHLLFGKCLCTVATLRTTYGEMADCCAKOBERNECGLQHKDNPMLPRIVRE 208
| | | | |
DB 84 ENCDKSLHLLFGKCLCTVATLRTTYGEMADCCAKOBERNECGLQHKDNPMLPRIVRE 143
| | | | |
QY 209 VDVMTCTAFDNEETPLKLYETIARHPYFYABELLFFAKRYAAATTECCOADAACAALL 268
| | | | |
DB 144 VDVMTCTAFDNEETPLKLYETIARHPYFYABELLFFAKRYAAATTECCOADAACAALL 203
| | | | |
QY 269 PKLDELRLDEGKASASAKQRLKCAISLOKFGERAFAVMAVARLSORFPRAEPAEVSCLVTDTLT 328
| | | | |
DB 204 PKLDELRLDEGKASASAKQRLKCAISLOKFGERAFAVMAVARLSORFPRAEPAEVSCLVTDTLT 263
| | | | |
QY 329 KYHTECHGDLLECADRRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 388
| | | | |
DB 264 KYHTECHGDLLECADRRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 323
| | | | |

QY 389 ADLPSLAADPVESKOVCKNVAEAKDVFLGMLFYEARHPDYSVVLRLRLATYETTLK 448
| | | | |
DB 324 ADLPSLAADPVESKOVCKNVAEAKDVFLGMLFYEARHPDYSVVLRLRLATYETTLK 383
| | | | |
QY 449 CCAADPHCEYAKVDEFPPLVEEPONL I KNCCELFEOLGEYKFPONALLVRYTKKVPQVS 508
| | | | |
DB 384 CCAADPHCEYAKVDEFPPLVEEPONL I KNCCELFEOLGEYKFPONALLVRYTKKVPQVS 443
| | | | |
QY 509 TPTLVEVSNNLGVSKSCCKHPEAKRMPCAEDYLSVNLQCLVHEKTPVSDRVTKCCTE 568
| | | | |
DB 444 TPTLVEVSNNLGVSKSCCKHPEAKRMPCAEDYLSVNLQCLVHEKTPVSDRVTKCCTE 503
| | | | |
QY 569 SLVNRPPCSALEVDETYVPKEFNATFTFHADICTLSEKERQIKQOTLVELVGHKPKPA 628
| | | | |
DB 504 SLVNRPPCSALEVDETYVPKEFNATFTFHADICTLSEKERQIKQOTLVELVGHKPKPA 563
| | | | |
QY 629 TTEOLKAVMDPFAFVEKCKADDEKTCFAEBGKGLVAASQALGL 674
| | | | |
DB 564 TTEOLKAVMDPFAFVEKCKADDEKTCFAEBGKGLVAASQALGL 609
| | | | |

RESULT 6
US-08-797-689-2
; Sequence 2, Application US/08797689
; Patent No. 587969
; GENERAL INFORMATION:
; APPLICANT: Fleer, Reinhard
; APPLICANT: Fournier, Alain
; APPLICANT: Guitton, Jean-Dominique
; APPLICANT: Jung, Gerard
; APPLICANT: Yeh, Patricia
; TITLE OF INVENTION: NOVEL BIOLOGICALLY ACTIVE POLYPEPTIDES,
; TITLE OF INVENTION: PREPARATION THEREOF AND PHARMACEUTICAL COMPOSITION
; TITLE OF INVENTION: CONTAINING SAID POLYPEPTIDES
; NUMBER OF SEQUENCES: 36
; CORRESPONDENCE ADDRESSES:
; ADDRESSEE: Rhone-Poulenc Rorer Inc.
; STREET: 500 Atcola Road, 3C43
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: System 7.1
; SOFTWARE: Word 5.1 (PatentIn)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/797,689
; FILING DATE: 31-JAN-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/256,927
; FILING DATE: 28-JUL-1994
; APPLICATION NUMBER: FR 92/01064
; FILING DATE: 31-JAN-1992
; PRIOR APPLICATION NUMBER:
; APPLICATION NUMBER: PCT/FR93/00085
; FILING DATE: 28-JAN-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith Ph.D., Julie K.
; REGISTRATION NUMBER: P-38,619
; REFERENCE/DOCKET NUMBER: ST92006-US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (610) 454-3839
; TELEFAX: (610) 454-3808
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 610 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-797-689-2

Query Match 87.1%; Score 3108; DB 1; Length 610;
 Best Local Similarity 100.0%; Pred. No. 4,1e-279; Indels 0; Gaps 0;
 Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

89 RDHKSEVAVHFPDGLSENFKALVLTAFAYLQCCPEFHVKLWNEVTEPAKTCVADESA 148
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 24 RDHKSEVAVHFPDGLSENFKALVLTAFAYLQCCPEFHVKLWNEVTEPAKTCVADESA 83
 |||||

149 ENCDKSLHTLFGDKLCTVATLRETGYEMADCCAKQBERNECFLQHKDNPNI.PRLVPE 208
 84 ENCDKSLHTLFGDKLCTVATLRETGYEMADCCAKQBERNECFLQHKDNPNI.PRLVPE 143
 |||||

209 VDMWCTAFHNDNEETFLKCYLYEYARHPYFAPBELLFPKARYKAAFTCCQADKAAACL 268
 144 VDMWCTAFHNDNEETFLKCYLYEYARHPYFAPBELLFPKARYKAAFTCCQADKAAACL 203
 |||||

269 PKLDELREDEGKASSAKQRLKCAISQKFGERAFAKMAVARLSORFPKAFPAVSKLVTDLT 328
 204 PKLDELREDEGKASSAKQRLKCAISQKFGERAFAKMAVARLSORFPKAFPAVSKLVTDLT 263
 |||||

329 KVATCCGDLLECADRADLAKYICENQDISSKLKECCCKPLKSHCIAEVNDMP 388
 264 KVATCCGDLLECADRADLAKYICENQDISSKLKECCCKPLKSHCIAEVNDMP 323
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389 ADLPSLAADFVESKDVCKNYAEAKDVFLGMFLYEYARHPDYSVLLRLAKYETLLEK 448
 324 ADLPSLAADFVESKDVCKNYAEAKDVFLGMFLYEYARHPDYSVLLRLAKYETLLEK 383
 |||||

449 CCAADPHCEYACVDFEFKPLVEBPONLIKONCELPQDSEYKONALLVRYTKVPOVS 508
 384 CCAADPHCEYACVDFEFKPLVEBPONLIKONCELPQDSEYKONALLVRYTKVPOVS 443
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509 TPTLVEVSRLIGKVGSKCCGHPKAKMPCAEVYLSVLANQLCVLHETTPVSDRYTCCTE 568
 444 TPTLVEVSRLIGKVGSKCCGHPKAKMPCAEVYLSVLANQLCVLHETTPVSDRYTCCTE 503
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569 SLVNRRCFSALEVDETYYKPEFNAETFTFHADICTLSEKEROIKQOTALVELVKHPKA 628
 504 SLVNRRCFSALEVDETYYKPEFNAETFTFHADICTLSEKEROIKQOTALVELVKHPKA 563
 |||||

629 TKQOLKAVMDPFAAFVEKCCKADKCTCPAEBGKGLVAASQAALGL 674
 564 TKQOLKAVMDPFAAFVEKCCKADKCTCPAEBGKGLVAASQAALGL 609
 |||||

RESULT 7
 US-09-984-186-2
 ; Sequence 2, Application US/09984186
 ; Patent No. 6686179
 ; GENERAL INFORMATION:
 APPLICANT: Fleer, Reinhard
 Fournier, Alain
 Guitton, Jean-Dominique
 Jung, Gerard
 Yen, Patrice

TITLE OF INVENTION: NOVEL BIOLOGICALLY ACTIVE POLYPEPTIDES,
 PREPARATION THEREOF AND PHARMACEUTICAL COMPOSITION
 CONTAINING SAID POLYPEPTIDES

NUMBER OF SEQUENCES: 36
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Rhone-Poulenc Rorer Inc.
 STREET: 500 Arcoia Road, 3C43
 CITY: Collegeville
 STATE: PA
 COUNTRY: USA
 ZIP: 19426

COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: Macintosh
 OPERATING SYSTEM: System 7.1
 SOFTWARE: Word 5.1 (PatentIn)
 CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/984,186
 FILING DATE: 29-Oct-2001
 CLASSIFICATION: <Unknown>
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US/08/797,669
 FILING DATE: 31-JAN-1997
 APPLICATION NUMBER: US 08/256,927
 FILING DATE: 28-JUL-1994
 APPLICATION NUMBER: FR 92/01064
 FILING DATE: 31-JAN-1992
 APPLICATION NUMBER: PCT/FR93/00085
 FILING DATE: 28-JAN-1993

ATTORNEY/AGENT INFORMATION:
 NAME: Smith Ph.D., Julie K.
 REGISTRATION NUMBER: P-38,619
 REFERENCE/DOCKET NUMBER: ST92006-US
 TELEPHONE: (610) 454-3839
 TELEFAX: (610) 454-3808

INFORMATION FOR SEQ ID NO: 2:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 610 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 SEQUENCE DESCRIPTION: SEQ ID NO: 2:
 US-09-984-186-2

Query Match 87.1%; Score 3108; DB 2; Length 610;
 Best Local Similarity 100.0%; Pred. No. 4,1e-279; Indels 0; Gaps 0;
 Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

89 RDHKSEVAVHFPDGLSENFKALVLTAFAYLQCCPEFHVKLWNEVTEPAKTCVADESA 148
 |||||
 24 RDHKSEVAVHFPDGLSENFKALVLTAFAYLQCCPEFHVKLWNEVTEPAKTCVADESA 83
 |||||

149 ENCDKSLHTLFGDKLCTVATLRETGYEMADCCAKQBERNECFLQHKDNPNI.PRLVPE 208
 84 ENCDKSLHTLFGDKLCTVATLRETGYEMADCCAKQBERNECFLQHKDNPNI.PRLVPE 143
 |||||

209 VDMWCTAFHNDNEETFLKCYLYEYARHPYFAPBELLFPKARYKAAFTCCQADKAAACL 268
 144 VDMWCTAFHNDNEETFLKCYLYEYARHPYFAPBELLFPKARYKAAFTCCQADKAAACL 203
 |||||

269 PKLDELREDEGKASSAKQRLKCAISQKFGERAFAKMAVARLSORFPKAFPAVSKLVTDLT 328
 204 PKLDELREDEGKASSAKQRLKCAISQKFGERAFAKMAVARLSORFPKAFPAVSKLVTDLT 263
 |||||

329 KVATCCGDLLECADRADLAKYICENQDISSKLKECCCKPLKSHCIAEVNDMP 388
 264 KVATCCGDLLECADRADLAKYICENQDISSKLKECCCKPLKSHCIAEVNDMP 323
 |||||

389 ADLPSLAADFVESKDVCKNYAEAKDVFLGMFLYEYARHPDYSVLLRLAKYETLLEK 448
 324 ADLPSLAADFVESKDVCKNYAEAKDVFLGMFLYEYARHPDYSVLLRLAKYETLLEK 383
 |||||

449 CCAADPHCEYACVDFEFKPLVEBPONLIKONCELPQDSEYKONALLVRYTKVPOVS 508
 384 CCAADPHCEYACVDFEFKPLVEBPONLIKONCELPQDSEYKONALLVRYTKVPOVS 443
 |||||

509 TPTLVEVSRLIGKVGSKCCGHPKAKMPCAEVYLSVLANQLCVLHETTPVSDRYTCCTE 568
 444 TPTLVEVSRLIGKVGSKCCGHPKAKMPCAEVYLSVLANQLCVLHETTPVSDRYTCCTE 503
 |||||

569 SLVNRRCFSALEVDETYYKPEFNAETFTFHADICTLSEKEROIKQOTALVELVKHPKA 628
 504 SLVNRRCFSALEVDETYYKPEFNAETFTFHADICTLSEKEROIKQOTALVELVKHPKA 563
 |||||

629 TKQOLKAVMDPFAAFVEKCCKADKCTCPAEBGKGLVAASQAALGL 674
 564 TKQOLKAVMDPFAAFVEKCCKADKCTCPAEBGKGLVAASQAALGL 609
 |||||

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RESULT 8
US-09-949-016-11170
; Sequence 11170, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; PRIOR FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11170
; LENGTH: 622
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-11170

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Query Match      87.1%; Score 3108; DB 2; Length 622;
Best Local Similarity 100.0%; Pred. No. 4,2e-279;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY      89  RDAHSEVAHRRFDLGEENFKALVLIAPAOYLQCCPFEDHVLVNEVTEFAKTCVADBSA 148
DB      37  RDAHSEVAHRRFDLGEENFKALVLIAPAOYLQCCPFEDHVLVNEVTEFAKTCVADBSA 96
QY      149 ENCDSLIHTLFGDKICTVATTLRETYGEMADCCAKOBERNECFLOHKDNPMLPRLVRE 208
DB      97  ENCDSLIHTLFGDKICTVATTLRETYGEMADCCAKOBERNECFLOHKDNPMLPRLVRE 156
QY      209 VVMCTAFHDNEETFLKTYLVEIARRHPYFYAPPELLFPAKRYKAAFTCCOADAACALL 268
DB      157 VVMCTAFHDNEETFLKTYLVEIARRHPYFYAPPELLFPAKRYKAAFTCCOADAACALL 216
QY      269 PKLDELRLDEGKASSAKORLKASLQKFGERAFAKANAVALSORPFAEFAEYSKLVTTDLT 328
DB      217 PKLDELRLDEGKASSAKORLKASLQKFGERAFAKANAVALSORPFAEFAEYSKLVTTDLT 276
QY      329 KVHTECHGDLLECADRDADLAKYICENODSISSKLKECCERPLLEKSHCIAEVENDEMP 388
DB      277 KVHTECHGDLLECADRDADLAKYICENODSISSKLKECCERPLLEKSHCIAEVENDEMP 336
QY      389 ADLPSTLAADFVESKDVCKKNYAENKDVFLGMFLYEYARRHPDYSVLLRLAKTYETTLER 448
DB      337 ADLPSTLAADFVESKDVCKKNYAENKDVFLGMFLYEYARRHPDYSVLLRLAKTYETTLER 396
QY      449 CCAADPHECYAKVPEFPLVEEPONLIKONCELFEOUGEYKFPONALLVRYTKKVPQVS 508
DB      397 CCAADPHECYAKVPEFPLVEEPONLIKONCELFEOUGEYKFPONALLVRYTKKVPQVS 456
QY      509 TPTLVEVSNTLGVKSGCKCKHPAKKMPCAEDYLSVVLNOLCYLHKETPVSDEVTCKCTE 568
DB      457 TPTLVEVSNTLGVKSGCKCKHPAKKMPCAEDYLSVVLNOLCYLHKETPVSDEVTCKCTE 516
QY      569 SLVNRAPCFSALEVEDETVYPKEFNAETFTFHADICTLSEKERQIKKQTLNVELVKHKPRA 628
DB      517 SLVNRAPCFSALEVEDETVYPKEFNAETFTFHADICTLSEKERQIKKQTLNVELVKHKPRA 576
QY      629 TKEQLKAVNDPFAFYKCKCKADDKXTCPAEBGSKULVAASQAALGL 674
DB      577 TKEQLKAVNDPFAFYKCKCKADDKXTCPAEBGSKULVAASQAALGL 622

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RESULT 9
US-08-256-938-2
; Sequence 2, Application US/08256938

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; Patent No. 5665863
; GENERAL INFORMATION:
; APPLICANT: Yeh, Patrice
; TITLE OF INVENTION: NEW POLYPEPTIDES HAVING GRANULOCYTE
; COLONY STIMULATING ACTIVITY, PREPARATION THEREOF AND
; PHARMACEUTICAL COMPOSITIONS CONTAINING SAID POLYPEPTIDES
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSES: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcola Road, 3C43
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: System 7.1
; SOFTWARE: Word 5.0 (PatentIn)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/256,938
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: FR 92/01065
; FILING DATE: 31-JAN-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Goodman, Roseanne
; REGISTRATION NUMBER: 32,534
; REFERENCE/DOCKET NUMBER: ST92007-US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (610) 454-3817
; TELEFAX: (610) 454-3808
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 783 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-256-938-2

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Query Match      87.1%; Score 3108; DB 1; Length 783;
Best Local Similarity 100.0%; Pred. No. 6e-279;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY      89  RDAHSEVAHRRFDLGEENFKALVLIAPAOYLQCCPFEDHVLVNEVTEFAKTCVADBSA 148
DB      24  RDAHSEVAHRRFDLGEENFKALVLIAPAOYLQCCPFEDHVLVNEVTEFAKTCVADBSA 83
QY      149 ENCDSLIHTLFGDKICTVATTLRETYGEMADCCAKOBERNECFLOHKDNPMLPRLVRE 208
DB      84  ENCDSLIHTLFGDKICTVATTLRETYGEMADCCAKOBERNECFLOHKDNPMLPRLVRE 143
QY      209 VVMCTAFHDNEETFLKTYLVEIARRHPYFYAPPELLFPAKRYKAAFTCCOADAACALL 268
DB      144 VVMCTAFHDNEETFLKTYLVEIARRHPYFYAPPELLFPAKRYKAAFTCCOADAACALL 203
QY      269 PKLDELRLDEGKASSAKORLKASLQKFGERAFAKANAVALSORPFAEFAEYSKLVTTDLT 328
DB      204 PKLDELRLDEGKASSAKORLKASLQKFGERAFAKANAVALSORPFAEFAEYSKLVTTDLT 263
QY      329 KVHTECHGDLLECADRDADLAKYICENODSISSKLKECCERPLLEKSHCIAEVENDEMP 388
DB      264 KVHTECHGDLLECADRDADLAKYICENODSISSKLKECCERPLLEKSHCIAEVENDEMP 323
QY      389 ADLPSTLAADFVESKDVCKKNYAENKDVFLGMFLYEYARRHPDYSVLLRLAKTYETTLER 448
DB      324 ADLPSTLAADFVESKDVCKKNYAENKDVFLGMFLYEYARRHPDYSVLLRLAKTYETTLER 383
QY      449 CCAADPHECYAKVPEFPLVEEPONLIKONCELFEOUGEYKFPONALLVRYTKKVPQVS 508
DB      384 CCAADPHECYAKVPEFPLVEEPONLIKONCELFEOUGEYKFPONALLVRYTKKVPQVS 443

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QY 509 TPTLVEVSRLKGVSKCKHPEAKRMPCAEDYLSVLNQLCVLHEKTPVSDRVTKCCTE 568
 DB 444 TPTLVEVSRLKGVSKCKHPEAKRMPCAEDYLSVLNQLCVLHEKTPVSDRVTKCCTE 503
 QY 569 SLVNRPPCSALEVDETVYPKEFNATFTFHADICTLSEKEROIKQOTALVELVXKPKYA 628
 DB 504 SLVNRPPCSALEVDETVYPKEFNATFTFHADICTLSEKEROIKQOTALVELVXKPKYA 563
 QY 629 TBEQLKAVMDPFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 674
 DB 564 TBEQLKAVMDPFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 609

RESULT 10
 US-08-222-619-3
 ; Sequence 3, Application US/08222619

; GENERAL INFORMATION:
 ; APPLICANT: Lichenstein, Henri
 ; APPLICANT: Lyons, David
 ; APPLICANT: Witef, Mark
 ; APPLICANT: Wright, Samuel
 ; TITLE OF INVENTION: Afamin: A Human Serum Albumin-like
 ; TITLE OF INVENTION: Protein
 ; NUMBER OF SEQUENCES: 33
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Amgen Center, Patent Operations/RRC
 ; STREET: 1840 Dehavilland Drive
 ; CITY: Thousand Oaks
 ; STATE: California
 ; COUNTRY: U.S.
 ; ZIP: 91320-1789
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/222,619
 ; FILING DATE:
 ; CLASSIFICATION: 435
 ; INFORMATION FOR SEQ ID NO: 3:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 609 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: unknown
 ; TOPOLOGY: unknown
 ; MOLECULE TYPE: protein
 ; US-08-222-619-3

Query Match 87.0%; Score 3104; DB 1; Length 609;
 Best Local Similarity 99.8%; Pred. No. 9.6e-279;
 Matches 585; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 89 RDAHKSEVARRFPDQGENFKALVLIAPAYLOQCPEDHVKLVNTEPAKTCVADESA 148
 DB 24 RDAHKSEVARRFPDQGENFKALVLIAPAYLOQCPEDHVKLVNTEPAKTCVADESA 83
 QY 149 ENCDKSLHTLFGDKLCTVATLRETYGEMADCAKQEPERNECFLOHODDNPMLPRLVPE 208
 DB 84 ENCDKSLHTLFGDKLCTVATLRETYGEMADCAKQEPERNECFLOHODDNPMLPRLVPE 143
 QY 209 VDVWCTAFHNDNEETFLKYLVEIARRHPYFAPPELLFPARXYKAFTFCCQADKAACL 268
 DB 144 VDVWCTAFHNDNEETFLKYLVEIARRHPYFAPPELLFPARXYKAFTFCCQADKAACL 203
 QY 269 PKDELDELDEKASAKRLKASLOKGEBAFKAMAVARLSORPKKAPAVSVSLVDTLT 328
 DB 204 PKDELDELDEKASAKRLKASLOKGEBAFKAMAVARLSORPKKAPAVSVSLVDTLT 263
 QY 329 KVHTCECHGDLLECADRADLAKYICENODSISSEKLECECEKPLLEKSHCIAVENDEMP 388
 DB 264 KVHTCECHGDLLECADRADLAKYICENODSISSEKLECECEKPLLEKSHCIAVENDEMP 323

QY 389 ADLPSIADFVESKDVCKNVAEAKOVFLGMLFLEYARRHPDYSVLLRLATYETTLEK 448
 DB 324 ADLPSIADFVESKDVCKNVAEAKOVFLGMLFLEYARRHPDYSVLLRLATYETTLEK 383
 QY 449 CCAADPHCEYAKVDEPEPLVEEPONLIKONCELPFOQGEKPKPONALLVRYTKKVPQVS 508
 DB 384 CCAADPHCEYAKVDEPEPLVEEPONLIKONCELPFOQGEKPKPONALLVRYTKKVPQVS 443
 QY 509 TPTLVEVSRLKGVSKCKHPEAKRMPCAEDYLSVLNQLCVLHEKTPVSDRVTKCCTE 568
 DB 444 TPTLVEVSRLKGVSKCKHPEAKRMPCAEDYLSVLNQLCVLHEKTPVSDRVTKCCTE 503
 QY 569 SLVNRPPCSALEVDETVYPKEFNATFTFHADICTLSEKEROIKQOTALVELVXKPKYA 628
 DB 504 SLVNRPPCSALEVDETVYPKEFNATFTFHADICTLSEKEROIKQOTALVELVXKPKYA 563
 QY 629 TBEQLKAVMDPFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 674
 DB 564 TBEQLKAVMDPFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 609

RESULT 11
 US-08-433-037-4
 ; Sequence 4, Application US/08433037
 ; Patent No. 5707828

; GENERAL INFORMATION:
 ; APPLICANT: Sreekishna, Korkikanyadan
 ; APPLICANT: Barr, Kathryn A.
 ; APPLICANT: Brierley, Russell A.
 ; APPLICANT: Thill, Gregory P.
 ; APPLICANT: Techopp, Juerg P.
 ; TITLE OF INVENTION: EXPRESSION OF HUMAN SERUM ALBUMIN IN
 ; NUMBER OF SEQUENCES: 19
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Scully, Scott, Murphy & Presser
 ; STREET: 400 Garden City Plaza
 ; CITY: Garden City
 ; STATE: New York
 ; COUNTRY: U.S.A.
 ; ZIP: 11530-0299
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/433,037
 ; FILING DATE: 03-MAY-1995
 ; CLASSIFICATION: 435
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Digigilio, Frank S.
 ; REGISTRATION NUMBER: 31,346
 ; REFERENCE/DOCKET NUMBER: 9108Z
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (516) 742-4343
 ; TELEFAX: (516) 742-4366
 ; TELEX: 230 901 SANS UR
 ; INFORMATION FOR SEQ ID NO: 4:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 609 amino acids
 ; TYPE: amino acid
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; US-08-433-037-4

Query Match 87.0%; Score 3104; DB 1; Length 609;
 Best Local Similarity 99.8%; Pred. No. 9.6e-279;
 Matches 585; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 89 RDAHKSEVARRFPDQGENFKALVLIAPAYLOQCPEDHVKLVNTEPAKTCVADESA 148
 DB 24 RDAHKSEVARRFPDQGENFKALVLIAPAYLOQCPEDHVKLVNTEPAKTCVADESA 83
 QY 149 ENCDKSLHTLFGDKLCTVATLRETYGEMADCAKQEPERNECFLOHODDNPMLPRLVPE 208
 DB 84 ENCDKSLHTLFGDKLCTVATLRETYGEMADCAKQEPERNECFLOHODDNPMLPRLVPE 143
 QY 209 VDVWCTAFHNDNEETFLKYLVEIARRHPYFAPPELLFPARXYKAFTFCCQADKAACL 268
 DB 144 VDVWCTAFHNDNEETFLKYLVEIARRHPYFAPPELLFPARXYKAFTFCCQADKAACL 203
 QY 269 PKDELDELDEKASAKRLKASLOKGEBAFKAMAVARLSORPKKAPAVSVSLVDTLT 328
 DB 204 PKDELDELDEKASAKRLKASLOKGEBAFKAMAVARLSORPKKAPAVSVSLVDTLT 263
 QY 329 KVHTCECHGDLLECADRADLAKYICENODSISSEKLECECEKPLLEKSHCIAVENDEMP 388
 DB 264 KVHTCECHGDLLECADRADLAKYICENODSISSEKLECECEKPLLEKSHCIAVENDEMP 323

Db 24 RDAHSEVAHRFKDLDGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEPAKTCVADBSA 83
QY 149 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOPEBNEGCLQHKDNPMLPRLVRE 208
Db 84 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOPEBNEGCLQHKDNPMLPRLVRE 143
QY 209 VDVMTAFHNDNEETFLKYLVEIARRHPYFAPELLFPKARYKAATFECOAADKAACTL 268
Db 144 VDVMTAFHNDNEETFLKYLVEIARRHPYFAPELLFPKARYKAATFECOAADKAACTL 203
QY 269 PKLDLRDGRKSSAKORLKCSLQKFGERAFKAVARLSORFPKAEFAVSCLVTDLT 328
Db 204 PKLDLRDGRKSSAKORLKCSLQKFGERAFKAVARLSORFPKAEFAVSCLVTDLT 263
QY 329 KYHTECGHDLLECADRDADLAKYICENODSISSKLKECCEKPLIEKSHCIAEVENDEMP 388
Db 264 KYHTECGHDLLECADRDADLAKYICENODSISSKLKECCEKPLIEKSHCIAEVENDEMP 323
QY 389 ADLPSTIADPVESKDVCKNVAEAKDVLGMFLYEYARRHPYSVLLRLAKTYETTLTK 448
Db 324 ADLPSTIADPVESKDVCKNVAEAKDVLGMFLYEYARRHPYSVLLRLAKTYETTLTK 383
QY 449 CCAAADPHECTAKVDFEFPKPLVEEPONLIKONCELFEOUGEYKFPONALLVRYTKKVPQVS 508
Db 384 CCAAADPHECTAKVDFEFPKPLVEEPONLIKONCELFEOUGEYKFPONALLVRYTKKVPQVS 443
QY 509 TPTLVEVSRLNGKVGSKCKHPKAPKMPCAEDYLSVNLQLCVLEKTPVSDRVTKCCTE 568
Db 444 TPTLVEVSRLNGKVGSKCKHPKAPKMPCAEDYLSVNLQLCVLEKTPVSDRVTKCCTE 503
QY 569 SLVNRPPCFSALEVDETYVPKEFNAETFTFHADICTLSSEKROIKKQIALVELVGHKPKA 628
Db 504 SLVNRPPCFSALEVDETYVPKEFNAETFTFHADICTLSSEKROIKKQIALVELVGHKPKA 563
QY 629 TKEQLKAVMDPFAFVEKCCKADDKETCFABEGKLVAAASQALGL 674
Db 564 TKEQLKAVMDPFAFVEKCCKADDKETCFABEGKLVAAASQALGL 609

RESULT 12
US-08-897-956A-2
Sequence 2, Application US/08897956A
Patent No. 6423512
GENERAL INFORMATION:
APPLICANT: Mary Ellen Digan
APPLICANT: Philip Lake
APPLICANT: Hermann Gram
TITLE OF INVENTION: Fusion Polypeptides
FILE REFERENCE: 600-7244/CPA
CURRENT APPLICATION NUMBER: US/08/897,956A
CURRENT FILING DATE: 1997-07-21
PRIOR APPLICATION NUMBER: 60/022,689
PRIOR FILING DATE: 1996-07-26
NUMBER OF SEQ ID NOS: 38
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 2
LENGTH: 609
TYPE: PRT
ORGANISM: Homo Sapiens
US-08-897-956A-2

Query Match 87.0%; Score 3104; DB 2; Length 609;
Best Local Similarity 99.8%; Pred. No. 9,6e-279;
Matches 585; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 89 RDAHSEVAHRFKDLDGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEPAKTCVADBSA 148
Db 24 RDAHSEVAHRFKDLDGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEPAKTCVADBSA 83
QY 149 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOPEBNEGCLQHKDNPMLPRLVRE 208
Db 84 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOPEBNEGCLQHKDNPMLPRLVRE 143

QY 209 VDVMTAFHNDNEETFLKYLVEIARRHPYFAPELLFPKARYKAATFECOAADKAACTL 268
Db 144 VDVMTAFHNDNEETFLKYLVEIARRHPYFAPELLFPKARYKAATFECOAADKAACTL 203
QY 269 PKLDLRDGRKSSAKORLKCSLQKFGERAFKAVARLSORFPKAEFAVSCLVTDLT 328
Db 204 PKLDLRDGRKSSAKORLKCSLQKFGERAFKAVARLSORFPKAEFAVSCLVTDLT 263
QY 329 KYHTECGHDLLECADRDADLAKYICENODSISSKLKECCEKPLIEKSHCIAEVENDEMP 388
Db 264 KYHTECGHDLLECADRDADLAKYICENODSISSKLKECCEKPLIEKSHCIAEVENDEMP 323
QY 389 ADLPSTIADPVESKDVCKNVAEAKDVLGMFLYEYARRHPYSVLLRLAKTYETTLTK 448
Db 324 ADLPSTIADPVESKDVCKNVAEAKDVLGMFLYEYARRHPYSVLLRLAKTYETTLTK 383
QY 449 CCAAADPHECTAKVDFEFPKPLVEEPONLIKONCELFEOUGEYKFPONALLVRYTKKVPQVS 508
Db 384 CCAAADPHECTAKVDFEFPKPLVEEPONLIKONCELFEOUGEYKFPONALLVRYTKKVPQVS 443
QY 509 TPTLVEVSRLNGKVGSKCKHPKAPKMPCAEDYLSVNLQLCVLEKTPVSDRVTKCCTE 568
Db 444 TPTLVEVSRLNGKVGSKCKHPKAPKMPCAEDYLSVNLQLCVLEKTPVSDRVTKCCTE 503
QY 569 SLVNRPPCFSALEVDETYVPKEFNAETFTFHADICTLSSEKROIKKQIALVELVGHKPKA 628
Db 504 SLVNRPPCFSALEVDETYVPKEFNAETFTFHADICTLSSEKROIKKQIALVELVGHKPKA 563
QY 629 TKEQLKAVMDPFAFVEKCCKADDKETCFABEGKLVAAASQALGL 674
Db 564 TKEQLKAVMDPFAFVEKCCKADDKETCFABEGKLVAAASQALGL 609

RESULT 13
PCT-US95-04075-3
Sequence 3, Application PC/TUS9504075
GENERAL INFORMATION:
APPLICANT: AMGEN INC.
TITLE OF INVENTION: Afamin: A Human Serum Albumin-Like
TITLE OF INVENTION: Protein
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: Amgen Center, Patent Operations/RRC
STREET: 1840 DeHavilland Drive
CITY: Thousand Oaks
STATE: California
COUNTRY: U.S.
ZIP: 91320-1769
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/04075
FILING DATE:
CLASSIFICATION:
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 609 amino acids
TYPE: amino acid
STRANDEDNESS: unknown
TOPOLOGY: unknown
MOLECULE TYPE: protein
PCT-US95-04075-3

Query Match 87.0%; Score 3104; DB 4; Length 609;
Best Local Similarity 99.8%; Pred. No. 9,6e-279;
Matches 585; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 89 RDAHSEVAHRFKDLDGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEPAKTCVADBSA 148
Db 24 RDAHSEVAHRFKDLDGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEPAKTCVADBSA 83

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QY 149 ENGDKSLHTLFGDKLCTVATLTRETYGEMADCCAKOBERNECEFLQHKDNDPNLRLVLRPE 208
DB 84 ENCDKSLHTLFGDKLCTVATLTRETYGEMADCCAKOBERNECEFLQHKDNDPNLRLVLRPE 143
QY 209 VDVMTCAFDHNEETFLKKYLYEYIARRHPYFYAPBELLPFAKRYKAATTECCOADAACAACLL 268
DB 144 VDVMTCAFDHNEETFLKKYLYEYIARRHPYFYAPBELLPFAKRYKAATTECCOADAACAACLL 203
QY 269 PKLDELDEBGSASAKQRLKCSAQKGERAFKAMAVARLSQRPFAEFAYESKLVTDLT 328
DB 204 PKLDELDEBGSASAKQRLKCSAQKGERAFKAMAVARLSQRPFAEFAYESKLVTDLT 263
QY 329 KYHTECCGDLLECADRADLAKYICENODISSKLECCERPLEKSHCIAEVENDEMP 388
DB 264 KYHTECCGDLLECADRADLAKYICENODISSKLECCERPLEKSHCIAEVENDEMP 323
QY 389 ADLPSLAADPEVESKDYCKNYAEADVFLGMFLYEARHPDYSVLLRLAKYETTLLEK 448
DB 324 ADLPSLAADPEVESKDYCKNYAEADVFLGMFLYEARHPDYSVLLRLAKYETTLLEK 383
QY 449 CCAADPHECYAVFDEFPKPLVEBPONLIKONCELFQOLGEYKFNALLVRYTKVPOVS 508
DB 384 CCAADPHECYAVFDEFPKPLVEBPONLIKONCELFQOLGEYKFNALLVRYTKVPOVS 443
QY 509 TPTLVEYSRNLGKVGSKCCGHPKAKMPCABDYLSVNLQCVLHETKTPVSDVTCCPE 568
DB 444 TPTLVEYSRNLGKVGSKCCGHPKAKMPCABDYLSVNLQCVLHETKTPVSDVTCCPE 503
QY 569 SLVNRBPCFSALAEVDETYVPKEFNAETFTFHADICTLSEKERQIKKOTALVELVKHKPKA 628
DB 504 SLVNRBPCFSALAEVDETYVPKEFNAETFTFHADICTLSEKERQIKKOTALVELVKHKPKA 563
QY 629 TKEQLKAVMDFAAFVEKCCKADKCTCFABEGKLVAAASQAALGL 674
DB 564 TKEQLKAVMDFAAFVEKCCKADKCTCFABEGKLVAAASQAALGL 609

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RESULT 14
US-08-897-956A-3
; Sequence 3, Application US/08897956A
; Patent No. 6423512
; GENERAL INFORMATION:
; APPLICANT: Mary Ellen Digan
; APPLICANT: Philip Lake
; APPLICANT: Hermann Gram
; TITLE OF INVENTION: Fusion Polypeptides
; FILE REFERENCE: 600-7244/CPA
; CURRENT APPLICATION NUMBER: US/08/897,956A
; PRIOR FILING DATE: 1997-07-21
; PRIOR APPLICATION NUMBER: 60/022,689
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 978
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Fusion polypeptide
US-08-897-956A-3

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Query Match 87.0%; Score 3103.5; DB 2; Length 978;
Best Local Similarity 98.8%; Pred. No. 2.2e-278;
Matches 586; Conservative 1; Mismatches 3; Indels 3; Gaps 1;
QY 84 WLVK--GRANKEVAVHRRPKDGEENFKLVLAFAVOYQQCPFEHVLVNEVEFAK 140
DB 203 WLVSGGGSDAHSEVAVHRRPKDGEENFKLVLAFAVOYQQCPFEHVLVNEVEFAK 262
QY 141 TCVADESAENCDKSLHTLFGDKLCTVATLTRETYGEMADCCAKOBERNECEFLQHKDNDPN 200
DB 263 TCVADESAENCDKSLHTLFGDKLCTVATLTRETYGEMADCCAKOBERNECEFLQHKDNDPN 322

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QY 201 LRLVLRPEVDVMTCAFDHNEETFLKKYLYEYIARRHPYFYAPBELLPFAKRYKAATTECCOA 260
DB 323 LRLVLRPEVDVMTCAFDHNEETFLKKYLYEYIARRHPYFYAPBELLPFAKRYKAATTECCOA 382
QY 261 ADKAACTLPKDELDEBGSASAKQRLKCSAQKGERAFKAMAVARLSQRPFAEFAYEV 320
DB 389 ADKAACTLPKDELDEBGSASAKQRLKCSAQKGERAFKAMAVARLSQRPFAEFAYEV 442
QY 321 SKLVYDLYTVHTECCGDLLECADRADLAKYICENODISSKLECCERPLEKSHCIA 380
DB 443 SKLVYDLYTVHTECCGDLLECADRADLAKYICENODISSKLECCERPLEKSHCIA 502
QY 381 EYENDEMPADLPSLAADPEVESKDYCKNYAEADVFLGMFLYEARHPDYSVLLRLAK 440
DB 503 EYENDEMPADLPSLAADPEVESKDYCKNYAEADVFLGMFLYEARHPDYSVLLRLAK 562
QY 441 TYETTLLEKCAADPHECYAVFDEFPKPLVEBPONLIKONCELFQOLGEYKFNALLVRY 500
DB 563 TYETTLLEKCAADPHECYAVFDEFPKPLVEBPONLIKONCELFQOLGEYKFNALLVRY 622
QY 501 TKKVPOVSTPTLVEYSRNLGKVGSKCCGHPKAKMPCABDYLSVNLQCVLHETKTPVSD 560
DB 623 TKKVPOVSTPTLVEYSRNLGKVGSKCCGHPKAKMPCABDYLSVNLQCVLHETKTPVSD 682
QY 561 RYTKCCTESLVNRBPCFSALAEVDETYVPKEFNAETFTFHADICTLSEKERQIKKOTALVE 620
DB 683 RYTKCCTESLVNRBPCFSALAEVDETYVPKEFNAETFTFHADICTLSEKERQIKKOTALVE 742
QY 621 LVYHKPKATKEQLKAVMDFAAFVEKCCKADKCTCFABEGKLVAAASQAALG 673
DB 743 LVYHKPKATKEQLKAVMDFAAFVEKCCKADKCTCFABEGKLVAAASQAALG 795

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RESULT 15
US-08-153-799-14
; Sequence 14, Application US/08153799
; Patent No. 5766883
; GENERAL INFORMATION:
; APPLICANT: Ballance, David J
; APPLICANT: Goodey, Andrew R
; TITLE OF INVENTION: Polypeptides
; NUMBER OF SEQUENCES: 23
; CORRESPONDENCE ADDRESS:
; ADDRESSER: R Hain Swope, BOC Health Care Inc
; STREET: 100 Mountain Avenue
; CITY: Murray Hill
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07974
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/153,799
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/847975
; FILING DATE: 06-MAR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 8909916.2
; FILING DATE: 29-APR-1989
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/GB90/00650
; FILING DATE: 26-APR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/775952
; FILING DATE: 29-OCT-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Swope, R Hain

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Job time : 44.6037 secs

REGISTRATION NUMBER: 24864
REFERENCE/DOCKET NUMBER: 92H832
TELECOMMUNICATION INFORMATION:
TELEPHONE: (908) 665 2400
TELEFAX: (908) 771 6159
TELEX: 219484
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 585 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ORIGINAL SOURCE:
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: Region
LOCATION: 369..419 /note= "Alternative C-termini of
OTHER INFORMATION: /note= "Alternative C-termini of
OTHER INFORMATION: HSA(1-n)"
FEATURE:
NAME/KEY: Region
LOCATION: 1..585
OTHER INFORMATION: /note= "Amino acid sequence of
OTHER INFORMATION: natural HSA"
US-08-153-799-14

Query Match 87.0%; Score 3103; DB 1; Length 585;

Best Local Similarity 100.0%; Pred.No.1.le-276; Matches 585; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 90 DAHSEVAREFKDLSGENFKALVLIFAQYLOQCPEDHVKLVNVEYTERAKTCVADESAAE 149
DB 1 DAHSEVAREFKDLSGENFKALVLIFAQYLOQCPEDHVKLVNVEYTERAKTCVADESAAE 60
QY 150 NCDKSLHTLFGDKLCTVAITLRETYGMAOCCAKQEPERNECFLOHODDNPMLPRLVREPV 209
DB 61 NCDKSLHTLFGDKLCTVAITLRETYGMAOCCAKQEPERNECFLOHODDNPMLPRLVREPV 120
QY 210 DWACTFPHNEEFELKKYIYEIRRHPIYAPPELFPKRYKAFTCCOAKADKACLP 269
DB 121 DWACTFPHNEEFELKKYIYEIRRHPIYAPPELFPKRYKAFTCCOAKADKACLP 180
QY 270 KDELDEGKASSAKORLKCASLOKGERAFKAMAVARLSQREPKAEFAEVSRLVTDLTK 329
DB 181 KDELDEGKASSAKORLKCASLOKGERAFKAMAVARLSQREPKAEFAEVSRLVTDLTK 240
QY 330 VHTCCHGDLLECADRADIAKTIQENODSISSKLKECCCKPLKESHCIAEYNDMPA 389
DB 241 VHTCCHGDLLECADRADIAKTIQENODSISSKLKECCCKPLKESHCIAEYNDMPA 300
QY 390 DLPSLADPFESKDVCKNTAFAKDVFLGMPLYEARHPDYSVLLRLAKTYETTLK 449
DB 301 DLPSLADPFESKDVCKNTAFAKDVFLGMPLYEARHPDYSVLLRLAKTYETTLK 360
QY 450 CAADPHCECAKVFDEFKPLVEBPONLIKONCELFQOLGEYKQNALVRYTKVPQVST 509
DB 361 CAADPHCECAKVFDEFKPLVEBPONLIKONCELFQOLGEYKQNALVRYTKVPQVST 420
QY 510 PTLVEVSRLIGKTVSKCKRPAKMPCAEDYLSVILNQLCVLHEKTPVSDRYTKCTBS 569
DB 421 PTLVEVSRLIGKTVSKCKRPAKMPCAEDYLSVILNQLCVLHEKTPVSDRYTKCTBS 480
QY 570 LVNRRPCFSALVEDETYVPKEFNAETTFHADICTLSEKROIKKOTALVELYKHPKAT 629
DB 481 LVNRRPCFSALVEDETYVPKEFNAETTFHADICTLSEKROIKKOTALVELYKHPKAT 540
QY 630 KEQLKAVMDPFAFVKKCCAKADKETCFABEGKKLVAAASQAALGL 674
DB 541 KEQLKAVMDPFAFVKKCCAKADKETCFABEGKKLVAAASQAALGL 585

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 19, 2006, 12:29:13 ; Search time 142.172 Seconds
(without alignments)
1980.821 Million cell updates/sec

Title: US-10-775-180-447

Perfect score: 3568

Sequence: 1 MNIFYFLFLSPVQGLEHT.....TCFAEKGKLVASQAAGL 674

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA Main:
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6: /cgn2_6/prodata/1/pubppaa/us11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3568	100.0	674	US-10-775-180-447	Sequence 447, App
2	3568	100.0	674	US-10-775-204-1280	Sequence 1280, App
3	3444.5	96.5	669	US-10-775-180-419	Sequence 419, App
4	3444.5	96.5	669	US-10-775-204-1231	Sequence 1231, App
5	3444.5	96.5	730	US-10-775-180-610	Sequence 610, App
6	3444	96.5	730	US-10-775-204-1622	Sequence 1622, App
7	3438.5	96.4	669	US-10-775-180-425	Sequence 425, App
8	3438.5	96.4	669	US-10-775-204-1237	Sequence 1237, App
9	3438	96.4	730	US-10-775-180-612	Sequence 612, App
10	3438	96.4	730	US-10-775-204-1624	Sequence 1624, App
11	3432.5	96.2	669	US-10-775-180-420	Sequence 420, App
12	3432.5	96.2	669	US-10-775-180-421	Sequence 421, App
13	3432.5	96.2	669	US-10-775-180-423	Sequence 423, App
14	3432.5	96.2	669	US-10-775-180-424	Sequence 424, App
15	3432.5	96.2	669	US-10-775-204-1232	Sequence 1232, App
16	3432.5	96.2	669	US-10-775-204-1233	Sequence 1233, App
17	3432.5	96.2	669	US-10-775-204-1235	Sequence 1235, App
18	3432.5	96.2	669	US-10-775-204-1236	Sequence 1236, App
19	3427	96.0	668	US-10-775-180-609	Sequence 609, App
20	3427	96.0	668	US-10-775-204-1621	Sequence 1621, App
21	3422	95.9	662	US-10-775-180-611	Sequence 611, App
22	3422	95.9	662	US-10-775-204-1623	Sequence 1623, App
23	3421	95.9	668	US-10-775-180-613	Sequence 613, App
24	3421	95.9	668	US-10-775-204-1625	Sequence 1625, App
25	3420.5	95.9	664	US-10-775-180-598	Sequence 598, App
26	3420.5	95.9	664	US-10-775-204-1607	Sequence 1607, App
27	3418.5	95.8	663	US-10-775-180-600	Sequence 600, App

28	3418.5	95.8	663	US-10-775-204-1609	Sequence 1609, App
29	3416	95.7	662	US-10-775-180-614	Sequence 614, App
30	3416	95.7	662	US-10-775-204-1626	Sequence 1626, App
31	3414.5	95.7	664	US-10-775-180-599	Sequence 599, App
32	3414.5	95.7	664	US-10-775-204-1608	Sequence 1608, App
33	3413.5	95.7	667	US-10-775-180-422	Sequence 422, App
34	3413.5	95.7	667	US-10-775-204-1234	Sequence 1234, App
35	3412.5	95.6	663	US-10-775-180-601	Sequence 601, App
36	3412.5	95.6	663	US-10-775-204-1610	Sequence 1610, App
37	3412.5	95.6	654	US-10-775-180-574	Sequence 574, App
38	3278	91.9	654	US-10-775-204-1559	Sequence 1559, App
39	3275.5	91.8	655	US-10-775-180-623	Sequence 623, App
40	3275.5	91.8	655	US-10-775-204-1640	Sequence 1640, App
41	3267	91.6	682	US-10-775-204-1655	Sequence 1655, App
42	3265	91.5	639	US-10-775-180-131	Sequence 131, App
43	3265	91.5	639	US-10-775-204-417	Sequence 417, App
44	3261.5	91.4	700	US-10-775-204-1620	Sequence 1620, App
45	3259	91.3	639	US-10-775-180-159	Sequence 129, App

ALIGNMENTS

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RESULT 1
US-10-775-180-447
; Sequence 447, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF574
; CURRENT APPLICATION NUMBER: US/10/775,180
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See file wrapper or PAM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 447
; LENGTH: 674
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-447

Query Match      100.0%; Score 3568; DB 5; Length 674;
Best Local Similarity 100.0%; Pred. No. 1.4e-270; Indels 0; Gaps 0;
Matches 674; Conservative 0; Mismatches 0;

QY      1 MNIFYFLFLSPVQGLEHTRRGSLDKRGHGETFTSDVSYLGGAAKFTLAWLVKGNH 60
        |||
DB      1 MNIFYFLFLSPVQGLEHTRRGSLDKRGHGETFTSDVSYLGGAAKFTLAWLVKGNH 60
        |||
QY      61 GEGTFTSDVSYLGGAAKFTLAWLVKGNHDKHAKSEVAHFPKDLGEEHFAVLVLAPOYL 120
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Db      61 GEGFTSDVSSYLEGQAAKEFLIAMLVKGRDAHKSEVAHRFKDLSGENFKALVLIAPAYL 120
Qy      121 QCCPEPDHVKLVNTEVPFAKTCVADBSAENCDSKSLHTLFGDKLCTVAATLRETYGEMADCC 180
Db      121 QCCPEPDHVKLVNTEVPFAKTCVADBSAENCDSKSLHTLFGDKLCTVAATLRETYGEMADCC 180
Qy      181 AKQEPERNBCFLQHKDDNPNLPRLVPEVDVNCCTAFHNEETFLKKYLYEIRARHPFYA 240
Db      181 AKQEPERNBCFLQHKDDNPNLPRLVPEVDVNCCTAFHNEETFLKKYLYEIRARHPFYA 240
Qy      241 PELLPFAKRYKAFTFECQAAADKAACTLPKLDLDEBGRASAKORLKASIQKGERAF 300
Db      241 PELLPFAKRYKAFTFECQAAADKAACTLPKLDLDEBGRASAKORLKASIQKGERAF 300
Qy      301 KAMAVARLSQRPKAFPAVSKLVTDLTQVHTCCGDLLEGCADRADLAKYICENQDSI 360
Db      301 KAMAVARLSQRPKAFPAVSKLVTDLTQVHTCCGDLLEGCADRADLAKYICENQDSI 360
Qy      361 SSKLKECCCKPILKESHCIAEVENDMPADLPSLAADPVESKDVCKNVAEAKDVLGMFL 420
Db      361 SSKLKECCCKPILKESHCIAEVENDMPADLPSLAADPVESKDVCKNVAEAKDVLGMFL 420
Qy      421 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECTAKYFDEKPLVSEBPQNLIKON 480
Db      421 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECTAKYFDEKPLVSEBPQNLIKON 480
Qy      481 CELFEOIGRYKQNALVRYTKVPVSTPTLVESRNLGKVGSKCCGHPKAMPKACAD 540
Db      481 CELFEOIGRYKQNALVRYTKVPVSTPTLVESRNLGKVGSKCCGHPKAMPKACAD 540
Qy      541 YLSVNLQCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETVVPKEFNAETFTFHA 600
Db      541 YLSVNLQCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETVVPKEFNAETFTFHA 600
Qy      601 DICTLSEKEROIKKQTAVALVVKHPRKATKEQLKAVMDPFAAFVEKCCGADDKETCFABE 660
Db      601 DICTLSEKEROIKKQTAVALVVKHPRKATKEQLKAVMDPFAAFVEKCCGADDKETCFABE 660
Qy      661 GKLVAAASQALGL 674
Db      661 GKLVAAASQALGL 674

RESULT 2
US-10-775-204-1280
; Sequence 1280, Application US/10775204
; Publication No. US20050186664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF564
; CURRENT APPLICATION NUMBER: US/10/775,204
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623

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; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: Patent In Ver. 2.0
; SEQ ID NO 1280
; LENGTH: 674
; TYPE: PRF
; ORGANISM: Homo sapiens
US-10-775-204-1280

Query Match      100.0%; Score 3568; DB 5; Length 674;
Best Local Similarity 100.0%; Pred. No. 1,4e-270;
Matches 674; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 MNIFIFLPLSFVQGLSEHTRRGSLDRHGEGFTSDVSSYLEGQAAKEFLIAMLVKGRH 60
Db      1 MNIFIFLPLSFVQGLSEHTRRGSLDRHGEGFTSDVSSYLEGQAAKEFLIAMLVKGRH 60
Qy      61 GEGFTSDVSSYLEGQAAKEFLIAMLVKGRDAHKSEVAHRFKDLSGENFKALVLIAPAYL 120
Db      61 GEGFTSDVSSYLEGQAAKEFLIAMLVKGRDAHKSEVAHRFKDLSGENFKALVLIAPAYL 120
Qy      121 QCCPEPDHVKLVNTEVPFAKTCVADBSAENCDSKSLHTLFGDKLCTVAATLRETYGEMADCC 180
Db      121 QCCPEPDHVKLVNTEVPFAKTCVADBSAENCDSKSLHTLFGDKLCTVAATLRETYGEMADCC 180
Qy      181 AKQEPERNBCFLQHKDDNPNLPRLVPEVDVNCCTAFHNEETFLKKYLYEIRARHPFYA 240
Db      181 AKQEPERNBCFLQHKDDNPNLPRLVPEVDVNCCTAFHNEETFLKKYLYEIRARHPFYA 240
Qy      241 PELLPFAKRYKAFTFECQAAADKAACTLPKLDLDEBGRASAKORLKASIQKGERAF 300
Db      241 PELLPFAKRYKAFTFECQAAADKAACTLPKLDLDEBGRASAKORLKASIQKGERAF 300
Qy      301 KAMAVARLSQRPKAFPAVSKLVTDLTQVHTCCGDLLEGCADRADLAKYICENQDSI 360
Db      301 KAMAVARLSQRPKAFPAVSKLVTDLTQVHTCCGDLLEGCADRADLAKYICENQDSI 360
Qy      361 SSKLKECCCKPILKESHCIAEVENDMPADLPSLAADPVESKDVCKNVAEAKDVLGMFL 420
Db      361 SSKLKECCCKPILKESHCIAEVENDMPADLPSLAADPVESKDVCKNVAEAKDVLGMFL 420
Qy      421 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECTAKYFDEKPLVSEBPQNLIKON 480
Db      421 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECTAKYFDEKPLVSEBPQNLIKON 480
Qy      481 CELFEOIGRYKQNALVRYTKVPVSTPTLVESRNLGKVGSKCCGHPKAMPKACAD 540
Db      481 CELFEOIGRYKQNALVRYTKVPVSTPTLVESRNLGKVGSKCCGHPKAMPKACAD 540
Qy      541 YLSVNLQCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETVVPKEFNAETFTFHA 600
Db      541 YLSVNLQCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETVVPKEFNAETFTFHA 600
Qy      601 DICTLSEKEROIKKQTAVALVVKHPRKATKEQLKAVMDPFAAFVEKCCGADDKETCFABE 660
Db      601 DICTLSEKEROIKKQTAVALVVKHPRKATKEQLKAVMDPFAAFVEKCCGADDKETCFABE 660
Qy      661 GKLVAAASQALGL 674
Db      661 GKLVAAASQALGL 674

RESULT 3
US-10-775-180-419
; Sequence 419, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Albumin Fusion Proteins

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FILE REFERENCE: PF574
CURRENT APPLICATION NUMBER: US/10/775,180
CURRENT FILING DATE: 2004-02-11
PRIOR APPLICATION NUMBER: PCT/US02/40892
PRIOR FILING DATE: 2002-12-23
PRIOR APPLICATION NUMBER: 60/341,811
PRIOR FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 60/360,000
PRIOR FILING DATE: 2002-02-28
PRIOR APPLICATION NUMBER: 60/378,950
PRIOR FILING DATE: 2002-05-10
PRIOR APPLICATION NUMBER: 60/398,008
PRIOR FILING DATE: 2002-07-24
PRIOR APPLICATION NUMBER: 60/411,355
PRIOR FILING DATE: 2002-09-18
PRIOR APPLICATION NUMBER: 60/414,984
PRIOR FILING DATE: 2002-10-02
PRIOR APPLICATION NUMBER: 60/417,611
PRIOR FILING DATE: 2002-10-11
PRIOR APPLICATION NUMBER: 60/420,246
PRIOR FILING DATE: 2002-10-23
PRIOR APPLICATION NUMBER: 60/423,623
PRIOR FILING DATE: 2002-11-05
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 858
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 419
LENGTH: 669
TYPE: PRT
ORGANISM: Homo sapiens
US-10-775-180-419

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Query Match          96.5%; Score 3444.5; DB 5; Length 669;
Best Local Similarity 97.3%; Pred. No. 6,8e-261;
Matches 654; Conservative 4; Mismatches 5; Indels 9; Gaps 1;

QY 3 IFYIFLPLSFVQGLHETHRRGSLDKRHGSGFTSDVSSYLBGOAKEFIAMLVKGRHGE 62
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 7 ISLLPFSSAYSR-----SLDKRHGSGFTSDVSSYLBGOAKEFIAMLVKGRHGE 57

QY 63 GTFTSDVSSYLBGOAKEFIAMLVKGRDAHKSVAHRFMDLGENFPAVLIAFAOYLQO 122
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 58 GTFTSDVSSYLBGOAKEFIAMLVKGRDAHKSVAHRFMDLGENFPAVLIAFAOYLQO 117

QY 123 CPREDHVKLVNVEYTEFAKTCVADESAENCDSIHTLFGDKLCTVATLRETYGEMADCCAK 182
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 118 CPREDHVKLVNVEYTEFAKTCVADESAENCDSIHTLFGDKLCTVATLRETYGEMADCCAK 177

QY 183 QEBERNECFLOHODNDPNLPRIVRPEVDVWCTAFHNEBETFLKKLYEIAARRHPYFAPB 242
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 178 QEBERNECFLOHODNDPNLPRIVRPEVDVWCTAFHNEBETFLKKLYEIAARRHPYFAPB 237

QY 243 LIFPAKRYKAFTSCCOADKAACLPKLDLDEGRKASAKORLKCASIQKGERAFKA 302
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 238 LIFPAKRYKAFTSCCOADKAACLPKLDLDEGRKASAKORLKCASIQKGERAFKA 297

QY 303 WAAVARISQRPKAEFAVSKLVTDLYVHTECGHGLLECADRADIAKTI CENQDSISS 362
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 298 WAAVARISQRPKAEFAVSKLVTDLYVHTECGHGLLECADRADIAKTI CENQDSISS 357

QY 363 KLRKCCCKPILKSHCHIAEVENDEMPADLPGLADPFESKDVCKNVYAEADVFLGMFLYE 422
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 358 KLRKCCCKPILKSHCHIAEVENDEMPADLPGLADPFESKDVCKNVYAEADVFLGMFLYE 417

QY 423 YARRHPDYVYLILRLAKTYETTLKCCAAADPHCEYAKVFDEKFPVLEBPQNLIKONCE 482
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 418 YARRHPDYVYLILRLAKTYETTLKCCAAADPHCEYAKVFDEKFPVLEBPQNLIKONCE 477

QY 483 LFEQGLSGYKQNALLVRYTKKVPQVSTPTLVESRNITGKVGSKCCCKPEAKRMPCADYL 542
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 478 LFEQGLSGYKQNALLVRYTKKVPQVSTPTLVESRNITGKVGSKCCCKPEAKRMPCADYL 537

QY 543 SVYINOLCVLHEKTPVSDRYTKCTESLVNRRPCFSLAEVDETYVPEFNAETTFPADI 602

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DB 538 SVYINOLCVLHEKTPVSDRYTKCTESLVNRRPCFSLAEVDETYVPEFNAETTFPADI 597
QY 603 CTLSEKERQIKKQTLVVELVKKRPATKROLKAVMDFAAFYEKKCKADKCTPAEBSK 662
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 598 CTLSEKERQIKKQTLVVELVKKRPATKROLKAVMDFAAFYEKKCKADKCTPAEBSK 657

QY 663 KLVAAASQALGL 674
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 658 KLVAAASQALGL 669

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RESULT 4
US-10-775-204-1231
Sequence 1231, Application US/10775204
Publication No. US20050186664A1
GENERAL INFORMATION:
APPLICANT: Rosen, Craig A.
APPLICANT: Haseltine, William A.
APPLICANT: Balance, David J.
APPLICANT: Turner, Andrew J.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PF564
CURRENT APPLICATION NUMBER: US/10/775,204
CURRENT FILING DATE: 2004-02-11
PRIOR APPLICATION NUMBER: 60/341,811
PRIOR FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 60/360,000
PRIOR FILING DATE: 2002-02-28
PRIOR APPLICATION NUMBER: 60/378,950
PRIOR FILING DATE: 2002-05-10
PRIOR APPLICATION NUMBER: 60/398,008
PRIOR FILING DATE: 2002-07-24
PRIOR APPLICATION NUMBER: 60/411,355
PRIOR FILING DATE: 2002-09-18
PRIOR APPLICATION NUMBER: 60/414,984
PRIOR FILING DATE: 2002-10-02
PRIOR APPLICATION NUMBER: 60/417,611
PRIOR FILING DATE: 2002-10-11
PRIOR APPLICATION NUMBER: 60/420,246
PRIOR FILING DATE: 2002-10-23
PRIOR APPLICATION NUMBER: 60/423,623
PRIOR FILING DATE: 2002-11-05
PRIOR APPLICATION NUMBER: 60/351,360
PRIOR FILING DATE: 2002-01-28
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 2222
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 1231
LENGTH: 669
TYPE: PRT
ORGANISM: Homo sapiens
US-10-775-204-1231

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Query Match          96.5%; Score 3444.5; DB 5; Length 669;
Best Local Similarity 97.3%; Pred. No. 6,8e-261;
Matches 654; Conservative 4; Mismatches 5; Indels 9; Gaps 1;

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QY 3 IFYIFLPLSFVQGLHETHRRGSLDKRHGSGFTSDVSSYLBGOAKEFIAMLVKGRHGE 62
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 7 ISLLPFSSAYSR-----SLDKRHGSGFTSDVSSYLBGOAKEFIAMLVKGRHGE 57

QY 63 GTFTSDVSSYLBGOAKEFIAMLVKGRDAHKSVAHRFMDLGENFPAVLIAFAOYLQO 122
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 58 GTFTSDVSSYLBGOAKEFIAMLVKGRDAHKSVAHRFMDLGENFPAVLIAFAOYLQO 117

QY 123 CPREDHVKLVNVEYTEFAKTCVADESAENCDSIHTLFGDKLCTVATLRETYGEMADCCAK 182
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 118 CPREDHVKLVNVEYTEFAKTCVADESAENCDSIHTLFGDKLCTVATLRETYGEMADCCAK 177

QY 183 QEBERNECFLOHODNDPNLPRIVRPEVDVWCTAFHNEBETFLKKLYEIAARRHPYFAPB 242
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 178 QEBERNECFLOHODNDPNLPRIVRPEVDVWCTAFHNEBETFLKKLYEIAARRHPYFAPB 237

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QY 243 LIFFAKRYKAATFCCOAAADKAACTLPKLDLRLDEBKASASAKQRLKCASTLQKGERAFKA 302
DB 238 LIFFAKRYKAATFCCOAAADKAACTLPKLDLRLDEBKASASAKQRLKCASTLQKGERAFKA 297
QY 303 WAWARISORPPKAEFAFVSKLVTDLTKVATTECHGDLBCADDRADIATYICENODSISS 362
DB 298 WAWARISORPPKAEFAFVSKLVTDLTKVATTECHGDLBCADDRADIATYICENODSISS 357
QY 363 KJKECEKFLKESHCIAEVENDEMPADLPSLAADPVESKVCNVAEAKDVFIAWFLYE 422
DB 358 KJKECEKFLKESHCIAEVENDEMPADLPSLAADPVESKVCNVAEAKDVFIAWFLYE 417
QY 423 VARHPDYSVLLRLAKTYETTLKCAADPHECYAKVFDEKFLVEBPOMLIKONCE 482
DB 418 VARHPDYSVLLRLAKTYETTLKCAADPHECYAKVFDEKFLVEBPOMLIKONCE 477
QY 483 LFEOLGEYFONALLVRYTKVPQVSTPTLVESRNLGVGSKCKHPEAKMPCABDYI 542
DB 478 LFEOLGEYFONALLVRYTKVPQVSTPTLVESRNLGVGSKCKHPEAKMPCABDYI 537
QY 543 SVYLNOLCVLHEKTPVSDRYTKCTESLVNRRPCFSALFVDETVYKPEFNAETFTFHADI 602
DB 538 SVYLNOLCVLHEKTPVSDRYTKCTESLVNRRPCFSALFVDETVYKPEFNAETFTFHADI 597
QY 603 CTLSEKERQIKKQTAALVELVKHKPKATKEQLKAVMDPFAFVEKCKKADKETCFABEGK 662
DB 598 CTLSEKERQIKKQTAALVELVKHKPKATKEQLKAVMDPFAFVEKCKKADKETCFABEGK 657
QY 663 KLVAAASQAALGL 674
DB 658 KLVAAASQAALGL 669

RESULT 5
US-10-775-180-610
; Sequence 610, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF574
; CURRENT APPLICATION NUMBER: US/10/775,180
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 610
; LENGTH: 730
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-775-180-610

Query Match 96.5%; Score 3444; DB 5; Length 730;
Best Local Similarity 97.8%; Pred. No. 8.3e-261;
Matches 652; Conservative 4; Mismatches 11; Indels 0; Gaps 0;

QY 8 LFLIFVQGLHETHRRGSLDKRHGEGFTSDVSSYLEGOAAKEFLAMLVKGGHGGFTFS 67
DB 64 LFINITIASIAKEBGVSLDKRHGEGFTSDVSSYLEGOAAKEFLAMLVKGGHGGFTFS 123
QY 68 DVSSYLEGOAAKEFLAMLVKGGHGGFTSDVSSYLEGOAAKEFLAMLVKGGHGGFTFS 127
DB 124 DVSSYLEGOAAKEFLAMLVKGGHGGFTSDVSSYLEGOAAKEFLAMLVKGGHGGFTFS 183
QY 128 HVKLNVETEPKTCVADBSAENCDSLHTLFGDKLCTVATILRETYGEMADCCAQOEPER 187
DB 184 HVKLNVETEPKTCVADBSAENCDSLHTLFGDKLCTVATILRETYGEMADCCAQOEPER 243
QY 188 NECFLOHODNPNLRLVLRPVDVNNCTAFHNDNEFLKLYLVEIARRHDFYAPBLFFPA 247
DB 244 NECFLOHODNPNLRLVLRPVDVNNCTAFHNDNEFLKLYLVEIARRHDFYAPBLFFPA 303
QY 248 KRYKAATFCCOAAADKAACTLPKLDLRLDEBKASASAKQRLKCASTLQKGERAFKAAVAR 307
DB 304 KRYKAATFCCOAAADKAACTLPKLDLRLDEBKASASAKQRLKCASTLQKGERAFKAAVAR 363
QY 308 LSQRPKAEFAFVSKLVTDLTKVATTECHGDLBCADDRADIATYICENODSISSKLEK 367
DB 364 LSQRPKAEFAFVSKLVTDLTKVATTECHGDLBCADDRADIATYICENODSISSKLEK 423
QY 368 CEKPLLEKSHCTAEVENDEMPADLPSLAADPVESKVCNVAEAKDVFIAWFLYEARRH 427
DB 424 CEKPLLEKSHCTAEVENDEMPADLPSLAADPVESKVCNVAEAKDVFIAWFLYEARRH 483
QY 428 PYSVVLRLRLAKTYETTLKCAADPHECYAKVFDEKFLVEBPOMLIKONCELFEOI 487
DB 484 PYSVVLRLRLAKTYETTLKCAADPHECYAKVFDEKFLVEBPOMLIKONCELFEOI 543
QY 488 GEYKTONALLVRYTKVPQVSTPTLVESRNLGVGSKCKHPEAKMPCABDYISVVLN 547
DB 544 GEYKTONALLVRYTKVPQVSTPTLVESRNLGVGSKCKHPEAKMPCABDYISVVLN 603
QY 548 QLCVHHEKTPVSDRYTKCTESLVNRRPCFSALFVDETVYKPEFNAETFTFHADI CTLSE 607
DB 604 QLCVHHEKTPVSDRYTKCTESLVNRRPCFSALFVDETVYKPEFNAETFTFHADI CTLSE 663
QY 608 KERQIKKQTAALVELVKHKPKATKEQLKAVMDPFAFVEKCKKADKETCFABEGKLVAA 667
DB 664 KERQIKKQTAALVELVKHKPKATKEQLKAVMDPFAFVEKCKKADKETCFABEGKLVAA 723
QY 668 SQAALGL 674
DB 724 SQAALGL 730

RESULT 6
US-10-775-204-1622
; Sequence 1622, Application US/10775204
; Publication No. US2005018664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Turner, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF564
; CURRENT APPLICATION NUMBER: US/10/775,204
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10

Db 358 KLKCECEKPLEKSHCIAEVENDEMPADLPSTLAADPVESKVCNKAEDVFLGMPLYE 417
 QY 423 YARRHPDYSVLLRLAKTYETTLERKCAADPHECYAVDFEKPFLVEEPONLIKONCE 482
 Db 418 YARRHPDYSVLLRLAKTYETTLERKCAADPHECYAVDFEKPFLVEEPONLIKONCE 477
 QY 483 LFEQLGEYKFNALLVRYTKKVPQVSTPFLVEYSNRLGVGSKCKGHPAKRMPCAEDYL 542
 Db 478 LFEQLGEYKFNALLVRYTKKVPQVSTPFLVEYSNRLGVGSKCKGHPAKRMPCAEDYL 537
 QY 543 SVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYVPKEFNAETFTFHADI 602
 Db 538 SVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYVPKEFNAETFTFHADI 597
 QY 603 CTLSEKERQIKQTALVELVKHPRKATKQOLKAVMDPAAVFEKCKKADDKETCFABEGK 662
 Db 598 CTLSEKERQIKQTALVELVKHPRKATKQOLKAVMDPAAVFEKCKKADDKETCFABEGK 657
 QY 663 KLVAAASQALGL 674
 Db 658 KLVAAASQALGL 669

RESULT 8

US-10-775-204-1237
 ; Sequence 1237, Application US/10775204
 ; Publication No. US20050186664A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Rosen, Craig A.
 ; APPLICANT: Haseltine, William A.
 ; APPLICANT: Turner, Andrew J.
 ; TITLE OF INVENTION: Albumin Fusion Proteins
 ; FILE REFERENCE: PF564
 ; CURRENT APPLICATION NUMBER: US/10/775,204
 ; PRIOR FILING DATE: 2004-02-11
 ; PRIOR APPLICATION NUMBER: 60/341,811
 ; PRIOR FILING DATE: 2001-12-21
 ; PRIOR APPLICATION NUMBER: 60/360,000
 ; PRIOR FILING DATE: 2002-02-28
 ; PRIOR APPLICATION NUMBER: 60/378,950
 ; PRIOR FILING DATE: 2002-05-10
 ; PRIOR APPLICATION NUMBER: 60/398,008
 ; PRIOR FILING DATE: 2002-07-24
 ; PRIOR APPLICATION NUMBER: 60/411,355
 ; PRIOR FILING DATE: 2002-09-18
 ; PRIOR APPLICATION NUMBER: 60/414,984
 ; PRIOR FILING DATE: 2002-10-02
 ; PRIOR APPLICATION NUMBER: 60/417,611
 ; PRIOR FILING DATE: 2002-10-11
 ; PRIOR APPLICATION NUMBER: 60/420,246
 ; PRIOR FILING DATE: 2002-10-23
 ; PRIOR APPLICATION NUMBER: 60/423,623
 ; PRIOR FILING DATE: 2002-11-05
 ; PRIOR APPLICATION NUMBER: 60/351,360
 ; PRIOR FILING DATE: 2002-01-28
 ; PRIOR APPLICATION NUMBER: 60/351,360
 ; REMAINING PRIOR APPLICATION data removed - See file wrapper or PAM.
 ; NUMBER OF SEQ ID NOS: 2222
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 1237
 ; LENGTH: 669
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-775-204-1237

Query Match 96.4%; Score 3438.5; DB 5; Length 669;

Best Local Similarity 97.2%; Pred. No. 2e-260; Mismatches 6; Indels 9; Gaps 1;

QY 3 IFYIFLFLSPVQGLHTRRGLDGRHGGTFTSDVSSYLSGQAKERIAMLVKGRHGE 62
 Db 7 ISLHLFLFSAYIR-----SLDKRGGEGTFTSDVSSYLSGQAKERIAMLVKGRHGE 57

QY 63 GTFSTDVSSYLEGQAKERIAMLVKGRHGEVNAHRKQDLGEENFKALVLIAPAOYIQO 122
 Db 58 GTFSTDVSSYLEGQAKERIAMLVKGRHGEVNAHRKQDLGEENFKALVLIAPAOYIQO 117
 QY 123 CPEFHVKLVNTEFEAKTCVADESAENDCKSLHTLFGDKLCTVATLTRETYGEMADCCAK 182
 Db 118 CPEFHVKLVNTEFEAKTCVADESAENDCKSLHTLFGDKLCTVATLTRETYGEMADCCAK 177
 QY 183 QEPERNECFLOHKDNPMLPRLVREVDVMTAFHNEBETFLKKYLYEIAARRHPFYAVE 242
 Db 178 QEPERNECFLOHKDNPMLPRLVREVDVMTAFHNEBETFLKKYLYEIAARRHPFYAVE 237
 QY 243 LIFPAKRYKAATTECCQADKACLLPKLDLRDGGKASSAQRKCKASLQFGERRARFA 302
 Db 238 LIFPAKRYKAATTECCQADKACLLPKLDLRDGGKASSAQRKCKASLQFGERRARFA 297
 QY 303 WAAVRLSGRFPFAEFAEVSCLVTDLTKVHTCECHDLECADRDADLAKYICENODSIS 362
 Db 298 WAAVRLSGRFPFAEFAEVSCLVTDLTKVHTCECHDLECADRDADLAKYICENODSIS 357
 QY 363 KLKCECEKPLEKSHCIAEVENDEMPADLPSTLAADPVESKVCNKAEDVFLGMPLYE 422
 Db 358 KLKCECEKPLEKSHCIAEVENDEMPADLPSTLAADPVESKVCNKAEDVFLGMPLYE 417
 QY 423 YARRHPDYSVLLRLAKTYETTLERKCAADPHECYAVDFEKPFLVEEPONLIKONCE 482
 Db 418 YARRHPDYSVLLRLAKTYETTLERKCAADPHECYAVDFEKPFLVEEPONLIKONCE 477
 QY 483 LFEQLGEYKFNALLVRYTKKVPQVSTPFLVEYSNRLGVGSKCKGHPAKRMPCAEDYL 542
 Db 478 LFEQLGEYKFNALLVRYTKKVPQVSTPFLVEYSNRLGVGSKCKGHPAKRMPCAEDYL 537
 QY 543 SVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYVPKEFNAETFTFHADI 602
 Db 538 SVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYVPKEFNAETFTFHADI 597
 QY 603 CTLSEKERQIKQTALVELVKHPRKATKQOLKAVMDPAAVFEKCKKADDKETCFABEGK 662
 Db 598 CTLSEKERQIKQTALVELVKHPRKATKQOLKAVMDPAAVFEKCKKADDKETCFABEGK 657
 QY 663 KLVAAASQALGL 674
 Db 658 KLVAAASQALGL 669

RESULT 9

US-10-775-180-612
 ; Sequence 612, Application US/10775180
 ; Publication No. US20050054570A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Rosen, Craig A.
 ; APPLICANT: Haseltine, William A.
 ; TITLE OF INVENTION: Albumin Fusion Proteins
 ; FILE REFERENCE: PF574
 ; CURRENT APPLICATION NUMBER: US/10/775,180
 ; PRIOR FILING DATE: 2004-02-11
 ; PRIOR APPLICATION NUMBER: PCT/US02/40892
 ; PRIOR FILING DATE: 2002-12-23
 ; PRIOR APPLICATION NUMBER: 60/341,811
 ; PRIOR FILING DATE: 2001-12-21
 ; PRIOR APPLICATION NUMBER: 60/360,000
 ; PRIOR FILING DATE: 2002-02-28
 ; PRIOR APPLICATION NUMBER: 60/378,950
 ; PRIOR FILING DATE: 2002-05-10
 ; PRIOR APPLICATION NUMBER: 60/398,008
 ; PRIOR FILING DATE: 2002-07-24
 ; PRIOR APPLICATION NUMBER: 60/411,355
 ; PRIOR FILING DATE: 2002-09-18
 ; PRIOR APPLICATION NUMBER: 60/414,984
 ; PRIOR FILING DATE: 2002-10-02
 ; PRIOR APPLICATION NUMBER: 60/417,611
 ; PRIOR FILING DATE: 2002-10-11
 ; PRIOR APPLICATION NUMBER: 60/420,246

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; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 612
; LENGTH: 730
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-775-180-612

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Query Match      96.4%; Score 3438; DB 5; Length 730;
Best Local Similarity 97.6%; Pred. No. 2,5e-260;
Matches 651; Conservative 4; Mismatches 12; Indels 0; Gaps 0;

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QY 8 LPLSTVQGLHETHRRGSLDKRGEGFTSDVSSYLEGQAQKFIAMLVKGRHGEFTS 67
| : : :
DB 64 LPLNTIASIAAEBSVLDKRGEGFTSDVSSYLEGQAQKFIAMLVKGRHGEFTS 123
| : : :
QY 68 DVSSYLEGQAQKFIAMLVKGRDAHSEVAHREFDAGEENFKALVLIAPQYIQCCPFED 127
| : : :
DB 124 DVSSYLEGQAQKFIAMLVKGRDAHSEVAHREFDAGEENFKALVLIAPQYIQCCPFED 183
| : : :
QY 128 HVTLVNEVTEPACTVADSEANCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPER 187
| : : :
DB 184 HVTLVNEVTEPACTVADSEANCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPER 243
| : : :
QY 188 NECFLOHNDNPNLPLRVREPVDMCTAFHNDNEETFLKYLVEIARRHPFYAPPELLFFA 247
| : : :
DB 244 NECFLOHNDNPNLPLRVREPVDMCTAFHNDNEETFLKYLVEIARRHPFYAPPELLFFA 303
| : : :
QY 248 KRYKAAFTTECCQAADRAACILPKLDELBDGKASAKORLKASLOKGERAFKAWAVAR 307
| : : :
DB 304 KRYKAAFTTECCQAADRAACILPKLDELBDGKASAKORLKASLOKGERAFKAWAVAR 363
| : : :
QY 308 LSQRFPKAPFAEVSQKLVTDLTQVHTCCGHDLLFCADBRADLAKYICENDDSISSTLKKEC 367
| : : :
DB 364 LSQRFPKAPFAEVSQKLVTDLTQVHTCCGHDLLFCADBRADLAKYICENDDSISSTLKKEC 423
| : : :
QY 368 CEKPLLEKSHCIAEVENDEMPADLPSLAADPVESKVCNKYAKOVFLGMPFYEARRH 427
| : : :
DB 424 CEKPLLEKSHCIAEVENDEMPADLPSLAADPVESKVCNKYAKOVFLGMPFYEARRH 483
| : : :
QY 428 PDYSVVLILAKTYETTELKCCAAADPHCYAVPEDEFKPLVEBPONLIKONCELPBOL 487
| : : :
DB 484 PDYSVVLILAKTYETTELKCCAAADPHCYAVPEDEFKPLVEBPONLIKONCELPBOL 543
| : : :
QY 488 GEYKFOALLVRYTKKVPQVSTPLVVSRLGKVGSKCCGHPKAKMPCAEEDYLSVVLN 547
| : : :
DB 544 GEYKFOALLVRYTKKVPQVSTPLVVSRLGKVGSKCCGHPKAKMPCAEEDYLSVVLN 603
| : : :
QY 548 QLCVLAHEKTPVSDVTKCTESTLVNRRPCPSALEVDETYVKEBNAETFTFHADICTLSE 607
| : : :
DB 604 QLCVLAHEKTPVSDVTKCTESTLVNRRPCPSALEVDETYVKEBNAETFTFHADICTLSE 663
| : : :
QY 608 KERQIKKOTALVLELVKAPKPKATKEQLKAVMDPFAAFVEKCCAKADKXETCEAEBSKULVAA 667
| : : :
DB 664 KERQIKKOTALVLELVKAPKPKATKEQLKAVMDPFAAFVEKCCAKADKXETCEAEBSKULVAA 723
| : : :
QY 668 SQAAALGL 674
| : : :
DB 724 SQAAALGL 730
| : : :

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RESULT 10

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US-10-775-204-1624
; Sequence 1624, Application US/10775204
; Publication No. US20050186664n1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseletline, William A.
; APPLICANT: Balance, David J.

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; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF664
; CURRENT APPLICATION NUMBER: US/10/775,204
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1624
; LENGTH: 730
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-775-204-1624

```

```

Query Match      96.4%; Score 3438; DB 5; Length 730;
Best Local Similarity 97.6%; Pred. No. 2,5e-260;
Matches 651; Conservative 4; Mismatches 12; Indels 0; Gaps 0;

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QY 8 LPLSTVQGLHETHRRGSLDKRGEGFTSDVSSYLEGQAQKFIAMLVKGRHGEFTS 67
| : : :
DB 64 LPLNTIASIAAEBSVLDKRGEGFTSDVSSYLEGQAQKFIAMLVKGRHGEFTS 123
| : : :
QY 68 DVSSYLEGQAQKFIAMLVKGRDAHSEVAHREFDAGEENFKALVLIAPQYIQCCPFED 127
| : : :
DB 124 DVSSYLEGQAQKFIAMLVKGRDAHSEVAHREFDAGEENFKALVLIAPQYIQCCPFED 183
| : : :
QY 128 HVTLVNEVTEPACTVADSEANCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPER 187
| : : :
DB 184 HVTLVNEVTEPACTVADSEANCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPER 243
| : : :
QY 188 NECFLOHNDNPNLPLRVREPVDMCTAFHNDNEETFLKYLVEIARRHPFYAPPELLFFA 247
| : : :
DB 244 NECFLOHNDNPNLPLRVREPVDMCTAFHNDNEETFLKYLVEIARRHPFYAPPELLFFA 303
| : : :
QY 248 KRYKAAFTTECCQAADRAACILPKLDELBDGKASAKORLKASLOKGERAFKAWAVAR 307
| : : :
DB 304 KRYKAAFTTECCQAADRAACILPKLDELBDGKASAKORLKASLOKGERAFKAWAVAR 363
| : : :
QY 308 LSQRFPKAPFAEVSQKLVTDLTQVHTCCGHDLLFCADBRADLAKYICENDDSISSTLKKEC 367
| : : :
DB 364 LSQRFPKAPFAEVSQKLVTDLTQVHTCCGHDLLFCADBRADLAKYICENDDSISSTLKKEC 423
| : : :
QY 428 PDYSVVLILAKTYETTELKCCAAADPHCYAVPEDEFKPLVEBPONLIKONCELPBOL 487
| : : :
DB 484 PDYSVVLILAKTYETTELKCCAAADPHCYAVPEDEFKPLVEBPONLIKONCELPBOL 543
| : : :
QY 488 GEYKFOALLVRYTKKVPQVSTPLVVSRLGKVGSKCCGHPKAKMPCAEEDYLSVVLN 547
| : : :
DB 544 GEYKFOALLVRYTKKVPQVSTPLVVSRLGKVGSKCCGHPKAKMPCAEEDYLSVVLN 603
| : : :

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QY 548 QLCVLEHKTVPVSDRVTCTCTESLVNRRPCFSALAEVDETVVPKEFNAETFTFHADICTUSE 607
DB 604 QLCVLEHKTVPVSDRVTCTCTESLVNRRPCFSALAEVDETVVPKEFNAETFTFHADICTUSE 663
QY 608 KERQIKKQJALVELVYKHKPKATKEQLKAVMDPPAAFEVCKCQADDKETCFABEGKKLVAA 667
DB 664 KERQIKKQJALVELVYKHKPKATKEQLKAVMDPPAAFEVCKCQADDKETCFABEGKKLVAA 723
QY 668 SOAALGL 674
DB 724 SOAALGL 730
RESULT 11
US-10-775-180-420
; Sequence 420, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF574
; CURRENT APPLICATION NUMBER: US/10/775,180
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 420
; LENGTH: 669
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-420
Query Match 96.2%; Score 3432.5; DB 5; Length 669;
Best Local Similarity 97.0%; Pred. No. 5, 9e-260;
Matches 652; Conservative 4; Mismatches 7; Indels 9; Gaps 1;
QY 3 IYIYIFLISFVQGLEHTRRGSIDRRHGGFTSVSYLGOAKKEFIAMLVYGRHBS 62
DB 7 ISLFFESSAYSR-----SLDRHABGFTSVSYLGOAKKEFIAMLVYGRHAB 57
QY 63 GFTSVSYLGOAKKEFIAMLVYGRDAHKSVAHFRFDLGENFKALVLAFAQYLOO 122
DB 58 GFTSVSYLGOAKKEFIAMLVYGRDAHKSVAHFRFDLGENFKALVLAFAQYLOO 117
QY 123 CPEFDHVKLVNEVTEFAKTCVADESAENCDKSLHTLFGKLCVATLRETYGEMADCCAK 182
DB 118 CPEFDHVKLVNEVTEFAKTCVADESAENCDKSLHTLFGKLCVATLRETYGEMADCCAK 177
QY 183 QBERNECFLQHKDDNPPLRLVVRPVDVWCTAFHNNETFLKKYLYELARRHPYVABE 242
DB 178 QBERNECFLQHKDDNPPLRLVVRPVDVWCTAFHNNETFLKKYLYELARRHPYVABE 237

QY 243 LIFPAKRYKAFTBCCQADRAACILPRLDELREBGKASSAKORLKCA SLQKFGBARAKA 302
DB 248 LIFPAKRYKAFTBCCQADRAACILPRLDELREBGKASSAKORLKCA SLQKFGBARAKA 297
QY 303 WAAVRLSORPFAEFAEYSKLVTDLTXYHTSCCHGDLLECCADDRADLKKYICENODSIS 362
DB 298 WAAVRLSORPFAEFAEYSKLVTDLTXYHTSCCHGDLLECCADDRADLKKYICENODSIS 357
QY 363 KLECCCEKPLEKSHCIAEVENDEMPADLPISLAADFVESKOVCKRYAYAKOVFLGMPLYE 422
DB 358 KLECCCEKPLEKSHCIAEVENDEMPADLPISLAADFVESKOVCKRYAYAKOVFLGMPLYE 417
QY 423 YARRHPDYSVVLILFLATYETTELKCCQAADPHECYAKNDFEFPVLYEPPNLIKONCE 482
DB 418 YARRHPDYSVVLILFLATYETTELKCCQAADPHECYAKNDFEFPVLYEPPNLIKONCE 477
QY 483 LFEQGEYKFPQALLVRYTKKVPQVSTPTLIVSVSNLKVSKCKCHPEAKMPCAEYLT 542
DB 478 LFEQGEYKFPQALLVRYTKKVPQVSTPTLIVSVSNLKVSKCKCHPEAKMPCAEYLT 537
QY 543 SVVLNQLCVLEHKTVPVSDRVTCTCTESLVNRRPCFSALAEVDETVVPKEFNAETFTFHADI 602
DB 538 SVVLNQLCVLEHKTVPVSDRVTCTCTESLVNRRPCFSALAEVDETVVPKEFNAETFTFHADI 597
QY 603 CTLSKERQIKKQJALVELVYKHKPKATKEQLKAVMDPPAAFEVCKCQADDKETCFABEGK 662
DB 598 CTLSKERQIKKQJALVELVYKHKPKATKEQLKAVMDPPAAFEVCKCQADDKETCFABEGK 657
QY 663 KLVAA SOAALGL 674
DB 658 KLVAA SOAALGL 669
RESULT 12
US-10-775-180-421
; Sequence 421, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF574
; CURRENT APPLICATION NUMBER: US/10/775,180
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 421
; LENGTH: 669
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-421

Query Match 96.2%; Score 3432.5; DB 5; Length 669;
 Best Local Similarity 97.0%; Pred. No. 5,9e-260;
 Matches 652; Conservative 4; Mismatches 7; Indels 9; Gaps 1;

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QY 3 IFYIFPLSFVQGLEHTHRGSLDKRHGEGFTSDVSSYLBGOAKEFIAMLVKGRHGE 62
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D 7 ISLPLFSSAYS-----SLDKRHAGFTSDVSSYLBGOAKEFIAMLVKGRHAB 57

QY 63 GTFTSDVSSYLBGOAKEFIAMLVKGRDAKSEVAHRFKDLGEMFKALVLIAPAYLQ 122
   |||::|
D 58 GTFTSDVSSYLBGOAKEFIAMLVKGRDAKSEVAHRFKDLGEMFKALVLIAPAYLQ 117

QY 123 CPREDHVKLNVETEPKACTVADESANCKSLHTLFGDKLCTVATLRETYGEMADCCAK 182
   |||::|
D 118 CPREDHVKLNVETEPKACTVADESANCKSLHTLFGDKLCTVATLRETYGEMADCCAK 177

QY 183 QEPERNECFLQHKDNDNPLRLVRPEVDVMTAFHNDNEFTFLKKYLIEIARRHPYFAPE 242
   |||::|
D 178 QEPERNECFLQHKDNDNPLRLVRPEVDVMTAFHNDNEFTFLKKYLIEIARRHPYFAPE 237

QY 243 LLEFPAKRYKAFTBCCOADAADKAACLLPKLDLDEBKASSAKORLKASLOKGERAFKA 302
   |||::|
D 238 LLEFPAKRYKAFTBCCOADAADKAACLLPKLDLDEBKASSAKORLKASLOKGERAFKA 297

QY 303 WAAVARLSQRPKAFPAFVSKLVTDLTQVHTBECCHGDLLEGADRADLAKYICENODS ISS 362
   |||::|
D 298 WAAVARLSQRPKAFPAFVSKLVTDLTQVHTBECCHGDLLEGADRADLAKYICENODS ISS 357

QY 363 KLKCECEKPLLEKSHCIAEVENDEMPADLPSLAADFVESKDVCKNYAEAKOVFLGMFLYE 422
   |||::|
D 358 KLKCECEKPLLEKSHCIAEVENDEMPADLPSLAADFVESKDVCKNYAEAKOVFLGMFLYE 417

QY 423 YARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKYFDEKPYLVEBPQULIKONCE 482
   |||::|
D 418 YARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKYFDEKPYLVEBPQULIKONCE 477

QY 483 LFEQOLGEYKFNALLVRYTKKVPQVSTPPLVVEYSRLGVKSGCKKPEAKRMPCADBYL 542
   |||::|
D 478 LFEQOLGEYKFNALLVRYTKKVPQVSTPPLVVEYSRLGVKSGCKKPEAKRMPCADBYL 537

QY 543 SVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYVPKEFNAETFTFHADI 602
   |||::|
D 538 SVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYVPKEFNAETFTFHADI 597

QY 603 CTLSSEKEROIKKQOTALVELVKHKKATKEQLKAVMDPFAAFVEKCKADDKETCFABEGK 662
   |||::|
D 598 CTLSSEKEROIKKQOTALVELVKHKKATKEQLKAVMDPFAAFVEKCKADDKETCFABEGK 657

QY 663 KLVAAASQALGL 674
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D 658 KLVAAASQALGL 669

RESULT 13
US-10-775-180-423
; Sequence 423, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Roegen, Craig A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: P574
; CURRENT APPLICATION NUMBER: US/10/775,180
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10

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; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See file Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 423
; LENGTH: 669
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-423

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Query Match 96.2%; Score 3432.5; DB 5; Length 669;
 Best Local Similarity 97.0%; Pred. No. 5,9e-260;
 Matches 652; Conservative 4; Mismatches 7; Indels 9; Gaps 1;

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QY 3 IFYIFPLSFVQGLEHTHRGSLDKRHGEGFTSDVSSYLBGOAKEFIAMLVKGRHGE 62
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D 7 ISLPLFSSAYS-----SLDKRHGEGFTSDVSSYLBGOAKEFIAMLVKGRHAB 57

QY 63 GTFTSDVSSYLBGOAKEFIAMLVKGRDAKSEVAHRFKDLGEMFKALVLIAPAYLQ 122
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QY 123 CPREDHVKLNVETEPKACTVADESANCKSLHTLFGDKLCTVATLRETYGEMADCCAK 182
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QY 183 QEPERNECFLQHKDNDNPLRLVRPEVDVMTAFHNDNEFTFLKKYLIEIARRHPYFAPE 242
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D 178 QEPERNECFLQHKDNDNPLRLVRPEVDVMTAFHNDNEFTFLKKYLIEIARRHPYFAPE 237

QY 243 LLEFPAKRYKAFTBCCOADAADKAACLLPKLDLDEBKASSAKORLKASLOKGERAFKA 302
   |||::|
D 238 LLEFPAKRYKAFTBCCOADAADKAACLLPKLDLDEBKASSAKORLKASLOKGERAFKA 297

QY 303 WAAVARLSQRPKAFPAFVSKLVTDLTQVHTBECCHGDLLEGADRADLAKYICENODS ISS 362
   |||::|
D 298 WAAVARLSQRPKAFPAFVSKLVTDLTQVHTBECCHGDLLEGADRADLAKYICENODS ISS 357

QY 363 KLKCECEKPLLEKSHCIAEVENDEMPADLPSLAADFVESKDVCKNYAEAKOVFLGMFLYE 422
   |||::|
D 358 KLKCECEKPLLEKSHCIAEVENDEMPADLPSLAADFVESKDVCKNYAEAKOVFLGMFLYE 417

QY 423 YARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKYFDEKPYLVEBPQULIKONCE 482
   |||::|
D 418 YARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKYFDEKPYLVEBPQULIKONCE 477

QY 483 LFEQOLGEYKFNALLVRYTKKVPQVSTPPLVVEYSRLGVKSGCKKPEAKRMPCADBYL 542
   |||::|
D 478 LFEQOLGEYKFNALLVRYTKKVPQVSTPPLVVEYSRLGVKSGCKKPEAKRMPCADBYL 537

QY 543 SVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYVPKEFNAETFTFHADI 602
   |||::|
D 538 SVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYVPKEFNAETFTFHADI 597

QY 603 CTLSSEKEROIKKQOTALVELVKHKKATKEQLKAVMDPFAAFVEKCKADDKETCFABEGK 662
   |||::|
D 598 CTLSSEKEROIKKQOTALVELVKHKKATKEQLKAVMDPFAAFVEKCKADDKETCFABEGK 657

QY 663 KLVAAASQALGL 674
   |||::|
D 658 KLVAAASQALGL 669

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Db	58	GTFTSVSSYLEGQAAKEFIAMLVKGRDAHSEVAHRFKOLGRENFKALVLIAPAQYLQ	117
QY	123	CPPEDEHVKL VNEVTEBAKTCVADESA NCDSLHTLPGDKCTVATLRETYGEMADCCAK	182
Db	118	CPPEDEHVKL VNEVTEBAKTCVADESA NCDSLHTLPGDKCTVATLRETYGEMADCCAK	177
QY	183	QEBERNECFLOHODDNPNLPRLVREVDVWCTAFHNEETFLKKYL YEIARRHPYFYAPE	242
Db	178	QEBERNECFLOHODDNPNLPRLVREVDVWCTAFHNEETFLKKYL YEIARRHPYFYAPE	237
QY	243	LLEFAARYKAFTCCOAAADKA CLPKDELREDEGKASSAKORLKASIQKFGERA FKA	302
Db	238	LLEFAARYKAFTCCOAAADKA CLPKDELREDEGKASSAKORLKASIQKFGERA FKA	297
QY	303	WAVARLSORPPKAEFAVS KLVTDLTKVHTECCHGDLLECADPRADLAKYICENODSIS	362
Db	298	WAVARLSORPPKAEFAVS KLVTDLTKVHTECCHGDLLECADPRADLAKYICENODSIS	357
QY	363	KLKECCEKPLLEKSHCIAEVNDEMPADLP SLAADPVESKDVCKNYAABAKOVFLGMFLYE	422
Db	358	KLKECCEKPLLEKSHCIAEVNDEMPADLP SLAADPVESKDVCKNYAABAKOVFLGMFLYE	417
QY	423	YARRHPDYSVVLLRLAKTYETTLERKCAADPHECYAKVDFEKP LVEBPONLIRONCE	482
Db	418	YARRHPDYSVVLLRLAKTYETTLERKCAADPHECYAKVDFEKP LVEBPONLIRONCE	477
QY	483	LFEQLEBYKFO NALLVRYTKVPQVSTPTLVESRNIGKYGSKCKHPEAKRMPCAEDYL	542
Db	478	LFEQLEBYKFO NALLVRYTKVPQVSTPTLVESRNIGKYGSKCKHPEAKRMPCAEDYL	537
QY	543	SVVLNOLCVLHEKTPVSDRYTKCTESLVNRRPCFSAL EVDETYVPKEFNAETFTFHADI	602
Db	538	SVVLNOLCVLHEKTPVSDRYTKCTESLVNRRPCFSAL EVDETYVPKEFNAETFTFHADI	597
QY	603	CTLSEKERQIKOTALVELVGHKPKATKEQLKAVMDFFA FVEKCCAKDDKETCFABEGK	662
Db	598	CTLSEKERQIKOTALVELVGHKPKATKEQLKAVMDFFA FVEKCCAKDDKETCFABEGK	657
QY	663	KLVAASQAAALGL	674
Db	658	KLVAASQAAALGL	669

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 Job time : 144.172 secs

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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 19, 2006, 12:31:03 ; Search time 22.4986 Seconds
(without alignments)
1318.215 Million cell updates/sec

Title: US-10-775-180-447

Perfect score: 3568
Sequence: 1 MNIFYFLFLSLFVQGLEHT.....TCFAERGRKLVASQAALGL 674

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 225428 seqs, 44002918 residues

Total number of hits satisfying chosen parameters: 225428

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-Processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA New:*
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2: /SIDS5/ptcodata/1/pubpaa/US07_NEW_PUB.pep:*
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8: /SIDS5/ptcodata/1/pubpaa/US14_NEW_PUB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3568	100.0	674	US-11-175-690-206	Sequence 206, App
2	3568	100.0	915	US-11-175-690-208	Sequence 208, App
3	3401	95.3	658	US-11-175-690-210	Sequence 210, App
4	3395	95.2	654	US-11-175-690-219	Sequence 219, App
5	3395	95.2	656	US-11-175-690-225	Sequence 225, App
6	3393	95.1	650	US-11-175-690-209	Sequence 209, App
7	3392.5	95.1	655	US-11-175-690-220	Sequence 220, App
8	3392.5	95.1	657	US-11-175-690-216	Sequence 216, App
9	3392.5	95.1	657	US-11-175-690-303	Sequence 303, App
10	3391.5	95.1	653	US-11-175-690-218	Sequence 218, App
11	3391	95.0	652	US-11-175-690-215	Sequence 215, App
12	3390.5	95.0	659	US-11-175-690-221	Sequence 221, App
13	3389	95.0	648	US-11-175-690-214	Sequence 214, App
14	3387.5	94.9	651	US-11-175-690-224	Sequence 224, App
15	3386.5	94.9	647	US-11-175-690-212	Sequence 212, App
16	3386.5	94.9	643	US-11-175-690-213	Sequence 213, App
17	3386	94.9	646	US-11-175-690-223	Sequence 223, App
18	3214	90.1	779	US-11-175-690-205	Sequence 205, App
19	3198	89.6	646	US-11-175-690-276	Sequence 276, App
20	3190	89.4	678	US-11-175-690-274	Sequence 274, App
21	3182	89.2	642	US-11-175-690-238	Sequence 238, App
22	3176	89.0	642	US-11-175-690-233	Sequence 233, App
23	3171.5	88.9	647	US-11-175-690-242	Sequence 242, App
24	3159	88.5	636	US-11-175-690-268	Sequence 268, App
25	3158	88.5	636	US-11-175-690-278	Sequence 278, App

26	3154	88.4	636	US-11-175-690-240	Sequence 240, App
27	3144.5	88.1	693	US-11-175-690-199	Sequence 199, App
28	3137.5	87.9	688	US-11-175-690-198	Sequence 198, App
29	3134.5	87.9	637	US-11-175-690-266	Sequence 266, App
30	3131.5	87.8	629	US-11-175-690-562	Sequence 562, App
31	3126	87.6	728	US-11-175-690-244	Sequence 244, App
32	3126	87.6	728	US-11-175-690-246	Sequence 246, App
33	3126	87.6	728	US-11-175-690-248	Sequence 248, App
34	3125.5	87.6	672	US-11-175-690-200	Sequence 200, App
35	3122.5	87.5	673	US-11-175-690-201	Sequence 201, App
36	3118.5	87.4	667	US-11-175-690-227	Sequence 227, App
37	3116.5	87.3	673	US-11-175-690-217	Sequence 217, App
38	3116.5	87.3	673	US-11-175-690-231	Sequence 231, App
39	3116	87.3	728	US-11-175-690-254	Sequence 254, App
40	3115.5	87.3	663	US-11-175-690-284	Sequence 284, App
41	3112.5	87.2	634	US-11-175-690-287	Sequence 287, App
42	3112.5	87.2	665	US-11-175-690-282	Sequence 282, App
43	3111.5	87.2	661	US-11-175-690-281	Sequence 281, App
44	3110	87.2	742	US-11-175-690-525	Sequence 525, App
45	3109.5	87.1	638	US-11-175-690-229	Sequence 229, App

ALIGNMENTS

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RESULT 1
US-11-175-690-206
; Sequence 206, Application US/11175690 ✓
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselcline et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175, 690
; PRIOR FILING DATE: 2003-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 206
; LENGTH: 674
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-11-175-690-206

Query Match      100.0%; Score 3568; DB 7; Length 674;
Best Local Similarity 100.0%; Pred. No. 2.3e-274;
Matches 674; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY      1 MNIFYFLFLSLFVQGLEHTRRGSLDKRGSGTFTSDVSSYEGQAAKEFLAMLVKGNH 60
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DB      1 MNIFYFLFLSLFVQGLEHTRRGSLDKRGSGTFTSDVSSYEGQAAKEFLAMLVKGNH 60
QY      61 GEGTFSDVSSYEGQAAKEFLAMLVKGRDAKSEVAHRFKDVGEBNFRALVLIAPQYL 120
        |||
DB      61 GEGTFSDVSSYEGQAAKEFLAMLVKGRDAKSEVAHRFKDVGEBNFRALVLIAPQYL 120
QY      121 QGCPFDHAYLVNEVTEFAKTCVADESAENCDSKLTLLFGDKICTVATLTREYGEADCC 180
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Db      121  QCCPEDHVKLVNEYTEPFAKTCVADESAENCDKSLHTLFGDKLCTVAATLRETYGEMADCC 180
Qy      181  AKQEPERNBCFLQKHODNDPNLPRIVRPEVDWCTAFHNEETFLKKYLYEIAARRHPFYA 240
Db      181  AKQEPERNBCFLQKHODNDPNLPRIVRPEVDWCTAFHNEETFLKKYLYEIAARRHPFYA 240
Qy      241  PELFFPAKRYKAFTGCCQAADKAACTLPKLDLDEBGRKASSAKQRLKCSAQKGERAF 300
Db      241  PELFFPAKRYKAFTGCCQAADKAACTLPKLDLDEBGRKASSAKQRLKCSAQKGERAF 300
Qy      301  KAMAVARLSQRPFPKAEFAVSRLVTDLTGVHTCCGDLLECADRDADLAKYICENQDSI 360
Db      301  KAMAVARLSQRPFPKAEFAVSRLVTDLTGVHTCCGDLLECADRDADLAKYICENQDSI 360
Qy      361  SSKLKECCCKPFLKESKHCIAEVENDMPADLPSLADPVESKDVCKNVAEAKDVLGMFL 420
Db      361  SSKLKECCCKPFLKESKHCIAEVENDMPADLPSLADPVESKDVCKNVAEAKDVLGMFL 420
Qy      421  YEYARRHPDYSVVLRLAKTYETTLKCCCAADPHECYAKVPDEFKPLVEBPQNLIKON 480
Db      421  YEYARRHPDYSVVLRLAKTYETTLKCCCAADPHECYAKVPDEFKPLVEBPQNLIKON 480
Qy      481  CELFEQIGSYKQNALIVRYTKVPQVSTPLVBSRNLGKYSKCCGHPAKRMPCAD 540
Db      481  CELFEQIGSYKQNALIVRYTKVPQVSTPLVBSRNLGKYSKCCGHPAKRMPCAD 540
Qy      541  YLSVNLQCVLHEKTPVSDRYTKCTESLVNRRPFSALVEDETYPKEFNAETTFHA 600
Db      541  YLSVNLQCVLHEKTPVSDRYTKCTESLVNRRPFSALVEDETYPKEFNAETTFHA 600
Qy      601  DICTSEKEROIKQOTALVELVHKPKATKEQLKAVMDPFAAFVEKCKKADKETCFABE 660
Db      601  DICTSEKEROIKQOTALVELVHKPKATKEQLKAVMDPFAAFVEKCKKADKETCFABE 660
Qy      661  GKGLVAASQAALGL 674
Db      661  GKGLVAASQAALGL 674
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RESULT 2
US-11-175-690-208
; Sequence 208, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; PRIOR FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 208
; LENGTH: 915
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-208
```

```
Query Match      100.0%; Score 3566; DB 7; Length 915;
Best Local Similarity 100.0%; Pred. No. 3,4e-274;
Matches 674; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  KNIFIFLFLSPVQGLAHTHRGSLDRHSGFTSVSSYLBQAKKEFIAMLVKRRH 60
Db      1  KNIFIFLFLSPVQGLAHTHRGSLDRHSGFTSVSSYLBQAKKEFIAMLVKRRH 60
Qy      61  GEGTTSVSSYLBQAKKEFIAMLVKRDHKSQVARRFDQLEGNFKALVLAFAQYL 120
Db      61  GEGTTSVSSYLBQAKKEFIAMLVKRDHKSQVARRFDQLEGNFKALVLAFAQYL 120
Qy      121  QCCPEDHVKLVNEYTEPFAKTCVADESAENCDKSLHTLFGDKLCTVAATLRETYGEMADCC 180
Db      121  QCCPEDHVKLVNEYTEPFAKTCVADESAENCDKSLHTLFGDKLCTVAATLRETYGEMADCC 180
Qy      181  AKQEPERNBCFLQKHODNDPNLPRIVRPEVDWCTAFHNEETFLKKYLYEIAARRHPFYA 240
Db      181  AKQEPERNBCFLQKHODNDPNLPRIVRPEVDWCTAFHNEETFLKKYLYEIAARRHPFYA 240
Qy      241  PELFFPAKRYKAFTGCCQAADKAACTLPKLDLDEBGRKASSAKQRLKCSAQKGERAF 300
Db      241  PELFFPAKRYKAFTGCCQAADKAACTLPKLDLDEBGRKASSAKQRLKCSAQKGERAF 300
Qy      301  KAMAVARLSQRPFPKAEFAVSRLVTDLTGVHTCCGDLLECADRDADLAKYICENQDSI 360
Db      301  KAMAVARLSQRPFPKAEFAVSRLVTDLTGVHTCCGDLLECADRDADLAKYICENQDSI 360
Qy      361  SSKLKECCCKPFLKESKHCIAEVENDMPADLPSLADPVESKDVCKNVAEAKDVLGMFL 420
Db      361  SSKLKECCCKPFLKESKHCIAEVENDMPADLPSLADPVESKDVCKNVAEAKDVLGMFL 420
Qy      421  YEYARRHPDYSVVLRLAKTYETTLKCCCAADPHECYAKVPDEFKPLVEBPQNLIKON 480
Db      421  YEYARRHPDYSVVLRLAKTYETTLKCCCAADPHECYAKVPDEFKPLVEBPQNLIKON 480
Qy      481  CELFEQIGSYKQNALIVRYTKVPQVSTPLVBSRNLGKYSKCCGHPAKRMPCAD 540
Db      481  CELFEQIGSYKQNALIVRYTKVPQVSTPLVBSRNLGKYSKCCGHPAKRMPCAD 540
Qy      541  YLSVNLQCVLHEKTPVSDRYTKCTESLVNRRPFSALVEDETYPKEFNAETTFHA 600
Db      541  YLSVNLQCVLHEKTPVSDRYTKCTESLVNRRPFSALVEDETYPKEFNAETTFHA 600
Qy      601  DICTSEKEROIKQOTALVELVHKPKATKEQLKAVMDPFAAFVEKCKKADKETCFABE 660
Db      601  DICTSEKEROIKQOTALVELVHKPKATKEQLKAVMDPFAAFVEKCKKADKETCFABE 660
Qy      661  GKGLVAASQAALGL 674
Db      661  GKGLVAASQAALGL 674
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```
RESULT 3
US-11-175-690-210
; Sequence 210, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; PRIOR FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
```

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; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 210
; LENGTH: 658
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-210

Query Match      95.3%; Score 3401; DB 7; Length 658;
Best Local Similarity 96.1%; Pred. No. 3,6e-261;
Matches 648; Conservative 1; Mismatches 9; Indels 16; Gaps 1;

QY 1 MNIFYFLPLSLVVOGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60
DB 1 MNIFYFLPLSLVVOGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGR- 59
QY 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGRDAHSEVAHREFKDLGEENFKALVLIAPAYL 120
DB 60 -----DAHSEVAHREFKDLGEENFKALVLIAPAYL 104
QY 121 QGCPFEDHVKLVNEVEFAKTCVADESANCDKSLHTLFGDKCTVATLTRETYGENADCC 180
DB 105 QGCPFEDHVKLVNEVEFAKTCVADESANCDKSLHTLFGDKCTVATLTRETYGENADCC 164
QY 181 AKQEPENEGFLQHKDNPMLPRLVPEVVMCTAFHDBETFLKKYLYEIAHRRPYFA 240
DB 165 AKQEPENEGFLQHKDNPMLPRLVPEVVMCTAFHDBETFLKKYLYEIAHRRPYFA 224
QY 241 PELLFPAKRYKAATECCQAADRAACLPKLDLDRDEGKASSAKORLKASLQKFGERRAF 300
DB 225 PELLFPAKRYKAATECCQAADRAACLPKLDLDRDEGKASSAKORLKASLQKFGERRAF 284
QY 301 KANAVALRSQRPFAEFAEVSCLVTDLTKVHTCCGDLLECADRADLAKYICENODSI 360
DB 285 KANAVALRSQRPFAEFAEVSCLVTDLTKVHTCCGDLLECADRADLAKYICENODSI 344
QY 361 SSKLKECCERPLLEKSHCIAEVENDEMPADLPSLADPVESSKOVCKNYAEAKOVFLGMFL 420
DB 345 SSKLKECCERPLLEKSHCIAEVENDEMPADLPSLADPVESSKOVCKNYAEAKOVFLGMFL 404
QY 421 YEYARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECYAKVDEFPRLVEEPONTIKON 480
DB 405 YEYARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECYAKVDEFPRLVEEPONTIKON 464
QY 481 CELFEQGEYKFNALLVRYTKKVPQVSTPTLVEVSRNLGKVGSKCKKPBARMPCABD 540
DB 465 CELFEQGEYKFNALLVRYTKKVPQVSTPTLVEVSRNLGKVGSKCKKPBARMPCABD 524
QY 541 YLSVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALAEVDVETVVPKEFNATFTFHA 600
DB 525 YLSVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALAEVDVETVVPKEFNATFTFHA 584
QY 601 DICTLSEKEROIKKQTLNVELVGHKPKATGEQLKAVMDPFAFVEKCKCKADKETCPABE 660
DB 585 DICTLSEKEROIKKQTLNVELVGHKPKATGEQLKAVMDPFAFVEKCKCKADKETCPABE 644
QY 661 GKCLVAASQAALGL 674
DB 645 GKCLVAASQAALGL 658

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; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 219
; LENGTH: 654
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-219

Query Match      95.2%; Score 3395; DB 7; Length 654;
Best Local Similarity 96.1%; Pred. No. 1.1e-260;
Matches 648; Conservative 1; Mismatches 5; Indels 20; Gaps 2;

QY 1 MNIFYFLPLSLVVOGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60
DB 1 MNIFYFLPLSLVVOGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGR- 59
QY 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGRDAHSEVAHREFKDLGEENFKALVLIAPAYL 120
DB 60 -----DAHSEVAHREFKDLGEENFKALVLIAPAYL 100
QY 121 QGCPFEDHVKLVNEVEFAKTCVADESANCDKSLHTLFGDKCTVATLTRETYGENADCC 180
DB 101 QGCPFEDHVKLVNEVEFAKTCVADESANCDKSLHTLFGDKCTVATLTRETYGENADCC 160
QY 181 AKQEPENEGFLQHKDNPMLPRLVPEVVMCTAFHDBETFLKKYLYEIAHRRPYFA 240
DB 161 AKQEPENEGFLQHKDNPMLPRLVPEVVMCTAFHDBETFLKKYLYEIAHRRPYFA 220
QY 241 PELLFPAKRYKAATECCQAADRAACLPKLDLDRDEGKASSAKORLKASLQKFGERRAF 300
DB 221 PELLFPAKRYKAATECCQAADRAACLPKLDLDRDEGKASSAKORLKASLQKFGERRAF 280
QY 301 KANAVALRSQRPFAEFAEVSCLVTDLTKVHTCCGDLLECADRADLAKYICENODSI 360
DB 281 KANAVALRSQRPFAEFAEVSCLVTDLTKVHTCCGDLLECADRADLAKYICENODSI 340
QY 361 SSKLKECCERPLLEKSHCIAEVENDEMPADLPSLADPVESSKOVCKNYAEAKOVFLGMFL 420
DB 341 SSKLKECCERPLLEKSHCIAEVENDEMPADLPSLADPVESSKOVCKNYAEAKOVFLGMFL 400
QY 421 YEYARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECYAKVDEFPRLVEEPONTIKON 480
DB 401 YEYARRHPDYSVLLRLAKTYETTLLEKCCAAADPHECYAKVDEFPRLVEEPONTIKON 460
QY 481 CELFEQGEYKFNALLVRYTKKVPQVSTPTLVEVSRNLGKVGSKCKKPBARMPCABD 540
DB 461 CELFEQGEYKFNALLVRYTKKVPQVSTPTLVEVSRNLGKVGSKCKKPBARMPCABD 520
QY 541 YLSVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALAEVDVETVVPKEFNATFTFHA 600
DB 521 YLSVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALAEVDVETVVPKEFNATFTFHA 580
QY 601 DICTLSEKEROIKKQTLNVELVGHKPKATGEQLKAVMDPFAFVEKCKCKADKETCPABE 660

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RESULT 4
US-11-175-690-219
; Sequence 219, Application US/11/175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haeseltine et al.

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Db      581 DICTSEKERQIKQOTALVELVHKPKATKEQLKAVMDFFAAFEVKCCKADDKETCFABE 640
Qy      661 GKKLVAAASQALGL 674
Db      641 GKKLVAAASQALGL 654

RESULT 5
US-11-175-690-225
; Sequence 225, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 225
; LENGTH: 656
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-225

Query Match      95.2%; Score 3395; DB 7; Length 656;
Best Local Similarity 95.8%; Pred. No. 1.1e-260;
Matches 646; Conservative 3; Mismatches 7; Indels 18; Gaps 2;

Qy      1 MNIFYFLFLSVQGLBHTHRRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGRH 60
Db      1 MNIFYFLFLSVQGLBHTHRRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGRD 60
Qy      61 GEGTFTSDVSSYLEGQAKEFIAMLVKGRDAHKSEVAHRFKDLGSENFKALVLIAPAOYL 120
Db      61 AH-----KSEVAHRF-----KDAHKSEVAHRFKDLGSENFKALVLIAPAOYL 102
Qy      121 QCCPEFDHVKLVNEVTEFAKTCVADESANCDKSLHTLFGDKLCTVATLRETYGEMADCC 180
Db      103 QCCPEFDHVKLVNEVTEFAKTCVADESANCDKSLHTLFGDKLCTVATLRETYGEMADCC 162
Qy      181 AKQEPERNRCFLQHKDNDNPLPRLVPRVDWCTAFHNDNEFTLKKYLVEIARRHPYFYA 240
Db      163 AKQEPERNRCFLQHKDNDNPLPRLVPRVDWCTAFHNDNEFTLKKYLVEIARRHPYFYA 222
Qy      241 PELTFPAKKYKAAFTCCQAAADKAACTLPDLDELDEGKASAKQRLKCAISLOKFERAF 300
Db      223 PELTFPAKKYKAAFTCCQAAADKAACTLPDLDELDEGKASAKQRLKCAISLOKFERAF 282
Qy      301 KAAVAARLSQRPPKAFPAFVSKLVTDLTIVHTECGHDLLECADRADI AKYI CENQDSI 360
Db      283 KAAVAARLSQRPPKAFPAFVSKLVTDLTIVHTECGHDLLECADRADI AKYI CENQDSI 342
Qy      361 SSKLKCCCKPFLLEKSHCIAVENDEMPADLPBLADPFVESKDVCKNVAEADVPFLGML 420
Db      343 SSKLKCCCKPFLLEKSHCIAVENDEMPADLPBLADPFVESKDVCKNVAEADVPFLGML 402

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Qy      421 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKVFDEFPKLVBEPOULIKON 480
Db      403 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKVFDEFPKLVBEPOULIKON 462
Qy      481 CELFEQLGEYKQONALLVRYTKVPQVSTPTLVEYSRLGKVGSKCCCKHPEAKRMPCAED 540
Db      463 CELFEQLGEYKQONALLVRYTKVPQVSTPTLVEYSRLGKVGSKCCCKHPEAKRMPCAED 522
Qy      541 YLSVVLNQLCVLHEKTPVSDRVTCKCTESLVNRRPCFSALBVEDTYVPKEFNAETFTFHA 600
Db      523 YLSVVLNQLCVLHEKTPVSDRVTCKCTESLVNRRPCFSALBVEDTYVPKEFNAETFTFHA 582
Qy      601 DICTSEKERQIKQOTALVELVHKPKATKEQLKAVMDFFAAFEVKCCKADDKETCFABE 660
Db      583 DICTSEKERQIKQOTALVELVHKPKATKEQLKAVMDFFAAFEVKCCKADDKETCFABE 642
Qy      661 GKKLVAAASQALGL 674
Db      643 GKKLVAAASQALGL 656

RESULT 6
US-11-175-690-209
; Sequence 209, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 209
; LENGTH: 650
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-209

Query Match      95.1%; Score 3393; DB 7; Length 650;
Best Local Similarity 95.7%; Pred. No. 1.5e-260;
Matches 645; Conservative 0; Mismatches 5; Indels 24; Gaps 1;

Qy      1 MNIFYFLFLSVQGLBHTHRRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGRH 60
Db      1 MNIFYFLFLSVQGLBHTHRRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGRD 60
Qy      61 GEGTFTSDVSSYLEGQAKEFIAMLVKGRDAHKSEVAHRFKDLGSENFKALVLIAPAOYL 120
Db      61 AH-----KSEDAKSEVAHRFKDLGSENFKALVLIAPAOYL 96
Qy      121 QCCPEFDHVKLVNEVTEFAKTCVADESANCDKSLHTLFGDKLCTVATLRETYGEMADCC 180
Db      97 QCCPEFDHVKLVNEVTEFAKTCVADESANCDKSLHTLFGDKLCTVATLRETYGEMADCC 156
Qy      181 AKQEPERNRCFLQHKDNDNPLPRLVPRVDWCTAFHNDNEFTLKKYLVEIARRHPYFYA 240

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Db      157 AAGEPERNECFLOHODNPNLPRLVPRVDVWCTAFHNDSEFTLKKYLYEIRARHPYFA 216
Qy      241 PELFFPAKRYKAAFTTECCOAAADKAAACLLPKDELDEBEGKASSAKORLKCASLOKGERAF 300
Db      217 PELFFPAKRYKAAFTTECCOAAADKAAACLLPKDELDEBEGKASSAKORLKCASLOKGERAF 276
Qy      301 KAAVAARLSORPPKAEPAFVSRLVDTLTKVHTCCGDLLEGADBRADLAKYICENQDSI 360
Db      277 KAAVAARLSORPPKAEPAFVSRLVDTLTKVHTCCGDLLEGADBRADLAKYICENQDSI 336
Qy      361 SSKLKECCCKPILKESHCIAEVENDEMPADLPISLAADPVESSKOVCKNVAEAKDVFGLMFL 420
Db      337 SSKLKECCCKPILKESHCIAEVENDEMPADLPISLAADPVESSKOVCKNVAEAKDVFGLMFL 396
Qy      421 YEYARRHPDYSVLLRLRLAKTYETTLKESCAADPHECTAKVDFEKPILVEBPQNLIKON 480
Db      397 YEYARRHPDYSVLLRLRLAKTYETTLKESCAADPHECTAKVDFEKPILVEBPQNLIKON 456
Qy      481 CELFEOLGEYKRONALVRYTKRVPQVSTPTLVEVRNKGKVSCKCKPBAKRMPCAD 540
Db      457 CELFEOLGEYKRONALVRYTKRVPQVSTPTLVEVRNKGKVSCKCKPBAKRMPCAD 516
Qy      541 YLSVNLQCLVLEKTPVSDRYTKCTESLVNRRPCFSALAEVDETYVPKEFNAETFTFA 600
Db      517 YLSVNLQCLVLEKTPVSDRYTKCTESLVNRRPCFSALAEVDETYVPKEFNAETFTFA 576
Qy      601 DICTLSEKEROIKKQALVELVGHKPKATKEOLKAVMDPFAAFVEKCCADKXETCFABE 660
Db      577 DICTLSEKEROIKKQALVELVGHKPKATKEOLKAVMDPFAAFVEKCCADKXETCFABE 636
Qy      661 GKGLVAASQAAALGL 674
Db      637 GKGLVAASQAAALGL 650

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RESULT 7

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US-11-175-690-220
; Sequence 220, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haeseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 220
; LENGTH: 655
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-220

```

Query Match 95.1%; Score 3392.5; DB 7; Length 655;
 Best Local Similarity 95.8%; Pred. No. 1.7e-260;
 Matches 646; Conservative 2; Mismatches 7; Indels 19; Gaps 2;

```

Qy      1 NNI FYI FLFLS FVOGLBHTHRGSLDKRHGEGTSDVSSYLEGOAAKEFIAMLVKGRH 60
Db      1 NNI FYI FLFLS FVOGLBHTHRGSLDKRHGEGTSDVSSYLEGOAAKEFIAMLVKGRH 60
Qy      61 GEGTSDVSSYLEGOAAKEFIAMLVKGRDANKSEVARFMDLGENEPRALVLIAPAVL 120
Db      61 AH-----KSEVHRF-----DAKSVARHFKDLGENEPRALVLIAPAVL 101
Qy      121 QCCPEPDHVKLVNETHPAKTCVADSEANCKSLHTLFGDLCTVATLRETYGEMADCC 180
Db      102 QCCPEPDHVKLVNETHPAKTCVADSEANCKSLHTLFGDLCTVATLRETYGEMADCC 161
Qy      181 AAGEPERNECFLOHODNPNLPRLVPRVDVWCTAFHNDSEFTLKKYLYEIRARHPYFA 240
Db      162 AAGEPERNECFLOHODNPNLPRLVPRVDVWCTAFHNDSEFTLKKYLYEIRARHPYFA 221
Qy      241 PELFFPAKRYKAAFTTECCOAAADKAAACLLPKDELDEBEGKASSAKORLKCASLOKGERAF 300
Db      222 PELFFPAKRYKAAFTTECCOAAADKAAACLLPKDELDEBEGKASSAKORLKCASLOKGERAF 281
Qy      301 KAAVAARLSORPPKAEPAFVSRLVDTLTKVHTCCGDLLEGADBRADLAKYICENQDSI 360
Db      282 KAAVAARLSORPPKAEPAFVSRLVDTLTKVHTCCGDLLEGADBRADLAKYICENQDSI 341
Qy      361 SSKLKECCCKPILKESHCIAEVENDEMPADLPISLAADPVESSKOVCKNVAEAKDVFGLMFL 420
Db      342 SSKLKECCCKPILKESHCIAEVENDEMPADLPISLAADPVESSKOVCKNVAEAKDVFGLMFL 401
Qy      421 YEYARRHPDYSVLLRLRLAKTYETTLKESCAADPHECTAKVDFEKPILVEBPQNLIKON 480
Db      402 YEYARRHPDYSVLLRLRLAKTYETTLKESCAADPHECTAKVDFEKPILVEBPQNLIKON 461
Qy      481 CELFEOLGEYKRONALVRYTKRVPQVSTPTLVEVRNKGKVSCKCKPBAKRMPCAD 540
Db      462 CELFEOLGEYKRONALVRYTKRVPQVSTPTLVEVRNKGKVSCKCKPBAKRMPCAD 521
Qy      541 YLSVNLQCLVLEKTPVSDRYTKCTESLVNRRPCFSALAEVDETYVPKEFNAETFTFA 600
Db      522 YLSVNLQCLVLEKTPVSDRYTKCTESLVNRRPCFSALAEVDETYVPKEFNAETFTFA 581
Qy      601 DICTLSEKEROIKKQALVELVGHKPKATKEOLKAVMDPFAAFVEKCCADKXETCFABE 660
Db      582 DICTLSEKEROIKKQALVELVGHKPKATKEOLKAVMDPFAAFVEKCCADKXETCFABE 641
Qy      661 GKGLVAASQAAALGL 674
Db      642 GKGLVAASQAAALGL 655

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RESULT 8

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US-11-175-690-216
; Sequence 216, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haeseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172

```

; PRIOR FILING DATE: 2003-09-24
 ; PRIOR APPLICATION NUMBER: US 60/506,746
 ; PRIOR FILING DATE: 2003-09-30
 ; NUMBER OF SEQ ID NOS: 568
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 216
 ; LENGTH: 657
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-175-690-216

Query Match 95.1%; Score 3392.5; DB 7; Length 657;
 Best Local Similarity 96.1%; Pred. No. 1.7e-260;
 Matches 648; Conservative 1; Mismatches 8; Indels 17; Gaps 2;

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QY 1 MNIFYFLFLSVQGLSEHTHRGSLDKRHGEGFTSDVSSYLEGQAKEFLAMLVKGRH 60
DB 1 MNIFYFLFLSVQGLSEHTHRGSLDKRHGEGFTSDVSSYLEGQAKEFLAMLVKGR- 59
QY 61 GEGFTSDVSSYLEGQAKEFLAMLVKGRDAHKSEVAHRFKDLGSENFALVLIAPQYL 120
DB 60 -----DAHKSEVAHRFKD-DAHKSEVAHRFKDLGSENFALVLIAPQYL 103
QY 121 QCCPEPDHYKLVNEYTEPFAKTCVADSEANCDKSLHTLFGDKLCTVATLRETYGEMADCC 180
DB 104 QCCPEPDHYKLVNEYTEPFAKTCVADSEANCDKSLHTLFGDKLCTVATLRETYGEMADCC 163
QY 181 AKOEPERNCEFLQHKDNDPNLPRIVRPEVDWCTAFHNEETFLKKYIETARRHPYFYA 240
DB 164 AKOEPERNCEFLQHKDNDPNLPRIVRPEVDWCTAFHNEETFLKKYIETARRHPYFYA 223
QY 241 PELLPFAKRYKAFTTECCQAADKAACTLPKLDLRDEGKASSAKQRLCASIQKGERAF 300
DB 224 PELLPFAKRYKAFTTECCQAADKAACTLPKLDLRDEGKASSAKQRLCASIQKGERAF 283
QY 301 KMAVAARLSQRPKAEFAVSKLVTDLTQVHTECHGDLLECADRDADLAKYICENODSI 360
DB 284 KMAVAARLSQRPKAEFAVSKLVTDLTQVHTECHGDLLECADRDADLAKYICENODSI 343
QY 361 SSKLKECCCKPILKESHCTAEVENDMPADLPSTLAADPVESKDVCKNVAEADVLGML 420
DB 344 SSKLKECCCKPILKESHCTAEVENDMPADLPSTLAADPVESKDVCKNVAEADVLGML 403
QY 421 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKVDFEKPVLVEBPQNLIKQN 480
DB 404 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKVDFEKPVLVEBPQNLIKQN 463
QY 481 CELFEOIGRYKQNALVRYTKVPQVSTPLVVEVRNLGKYGSKCKGPEAKRMPCAD 540
DB 464 CELFEOIGRYKQNALVRYTKVPQVSTPLVVEVRNLGKYGSKCKGPEAKRMPCAD 523
QY 541 YLSVVLNQLCVLHEKTPVSDRVTCKCTESLVNRRPCFSALVEDETVVPKEPNAETTFHA 600
DB 524 YLSVVLNQLCVLHEKTPVSDRVTCKCTESLVNRRPCFSALVEDETVVPKEPNAETTFHA 583
QY 601 DICTSEKEROIKQOTALVELVKGKPKATKEQLKAVMDPFAAFVEKCKKADKETCPAAE 660
DB 584 DICTSEKEROIKQOTALVELVKGKPKATKEQLKAVMDPFAAFVEKCKKADKETCPAAE 643
QY 661 GKLVAAASQALGL 674
DB 644 GKLVAAASQALGL 657
  
```

RESULT 9
 US-11-175-690-303
 ; Sequence 303, Application US/11175690
 ; Publication No. US20060014254A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Haseltine et al.
 ; TITLE OF INVENTION: Albumin Fusion Proteins
 ; FILE REFERENCE: P605
 ; CURRENT APPLICATION NUMBER: US/11/175, 690

; CURRENT FILING DATE: 2005-07-07
 ; PRIOR APPLICATION NUMBER: PCT/US04/001369
 ; PRIOR FILING DATE: 2004-01-20
 ; PRIOR APPLICATION NUMBER: US 60/441,305
 ; PRIOR FILING DATE: 2003-01-22
 ; PRIOR APPLICATION NUMBER: US 60/453,201
 ; PRIOR FILING DATE: 2003-03-11
 ; PRIOR APPLICATION NUMBER: US 60/467,222
 ; PRIOR FILING DATE: 2003-05-02
 ; PRIOR APPLICATION NUMBER: US 60/472,816
 ; PRIOR FILING DATE: 2003-05-23
 ; PRIOR APPLICATION NUMBER: US 60/476,267
 ; PRIOR FILING DATE: 2003-06-06
 ; PRIOR APPLICATION NUMBER: US 60/505,172
 ; PRIOR FILING DATE: 2003-09-24
 ; PRIOR APPLICATION NUMBER: US 60/506,746
 ; PRIOR FILING DATE: 2003-09-30
 ; NUMBER OF SEQ ID NOS: 568
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 303
 ; LENGTH: 657
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-175-690-303

Query Match 95.1%; Score 3392.5; DB 7; Length 657;
 Best Local Similarity 96.1%; Pred. No. 1.7e-260;
 Matches 648; Conservative 1; Mismatches 8; Indels 17; Gaps 2;

```

QY 1 MNIFYFLFLSVQGLSEHTHRGSLDKRHGEGFTSDVSSYLEGQAKEFLAMLVKGRH 60
DB 1 MNIFYFLFLSVQGLSEHTHRGSLDKRHGEGFTSDVSSYLEGQAKEFLAMLVKGR- 59
QY 61 GEGFTSDVSSYLEGQAKEFLAMLVKGRDAHKSEVAHRFKDLGSENFALVLIAPQYL 120
DB 60 -----DAHKSEVAHRFKD-DAHKSEVAHRFKDLGSENFALVLIAPQYL 103
QY 121 QCCPEPDHYKLVNEYTEPFAKTCVADSEANCDKSLHTLFGDKLCTVATLRETYGEMADCC 180
DB 104 QCCPEPDHYKLVNEYTEPFAKTCVADSEANCDKSLHTLFGDKLCTVATLRETYGEMADCC 163
QY 181 AKOEPERNCEFLQHKDNDPNLPRIVRPEVDWCTAFHNEETFLKKYIETARRHPYFYA 240
DB 164 AKOEPERNCEFLQHKDNDPNLPRIVRPEVDWCTAFHNEETFLKKYIETARRHPYFYA 223
QY 241 PELLPFAKRYKAFTTECCQAADKAACTLPKLDLRDEGKASSAKQRLCASIQKGERAF 300
DB 224 PELLPFAKRYKAFTTECCQAADKAACTLPKLDLRDEGKASSAKQRLCASIQKGERAF 283
QY 301 KMAVAARLSQRPKAEFAVSKLVTDLTQVHTECHGDLLECADRDADLAKYICENODSI 360
DB 284 KMAVAARLSQRPKAEFAVSKLVTDLTQVHTECHGDLLECADRDADLAKYICENODSI 343
QY 361 SSKLKECCCKPILKESHCTAEVENDMPADLPSTLAADPVESKDVCKNVAEADVLGML 420
DB 344 SSKLKECCCKPILKESHCTAEVENDMPADLPSTLAADPVESKDVCKNVAEADVLGML 403
QY 421 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKVDFEKPVLVEBPQNLIKQN 480
DB 404 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKVDFEKPVLVEBPQNLIKQN 463
QY 481 CELFEOIGRYKQNALVRYTKVPQVSTPLVVEVRNLGKYGSKCKGPEAKRMPCAD 540
DB 464 CELFEOIGRYKQNALVRYTKVPQVSTPLVVEVRNLGKYGSKCKGPEAKRMPCAD 523
QY 541 YLSVVLNQLCVLHEKTPVSDRVTCKCTESLVNRRPCFSALVEDETVVPKEPNAETTFHA 600
DB 524 YLSVVLNQLCVLHEKTPVSDRVTCKCTESLVNRRPCFSALVEDETVVPKEPNAETTFHA 583
QY 601 DICTSEKEROIKQOTALVELVKGKPKATKEQLKAVMDPFAAFVEKCKKADKETCPAAE 660
DB 584 DICTSEKEROIKQOTALVELVKGKPKATKEQLKAVMDPFAAFVEKCKKADKETCPAAE 643
  
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QY 661 GKXVAAASQALGL 674
 DB 644 GKXVAAASQALGL 657

RESULT 10

US-11-175-690-215
 ; Sequence 215, Application US/11175690
 ; Publication No. US20060014254A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Haselcline et al.
 ; TITLE OF INVENTION: Albumin Fusion Proteins
 ; FILE REFERENCE: PP605
 ; CURRENT APPLICATION NUMBER: US/11/175,690
 ; PCT/US04/001369
 ; PRIOR FILING DATE: 2004-01-20
 ; PRIOR APPLICATION NUMBER: US 60/441,305
 ; PRIOR FILING DATE: 2003-01-22
 ; PRIOR APPLICATION NUMBER: US 60/453,201
 ; PRIOR FILING DATE: 2003-03-11
 ; PRIOR APPLICATION NUMBER: US 60/467,222
 ; PRIOR FILING DATE: 2003-05-02
 ; PRIOR APPLICATION NUMBER: US 60/472,816
 ; PRIOR FILING DATE: 2003-05-23
 ; PRIOR APPLICATION NUMBER: US 60/476,267
 ; PRIOR FILING DATE: 2003-06-06
 ; PRIOR APPLICATION NUMBER: US 60/505,172
 ; PRIOR FILING DATE: 2003-09-24
 ; PRIOR APPLICATION NUMBER: US 60/506,746
 ; PRIOR FILING DATE: 2003-09-30
 ; NUMBER OF SEQ ID NOS: 568
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 215
 ; LENGTH: 653
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-11-175-690-215

Query Match 95.1%; Score 3391.5; DB 7; Length 653;
 Best Local Similarity 96.0%; Pred. No. 2e-260;
 Matches 647; Conservative 1; Mismatches 5; Indels 21; Gaps 2;

QY 1 MNIFYIFLFLSLVQGIETHRRGSLDKRGEGFTSDVSSYLEGQAARFIAMLVKGRH 60
 DB 1 MNIFYIFLFLSLVQGIETHRRGSLDKRGEGFTSDVSSYLEGQAARFIAMLVKGRH 59
 QY 61 GEGFTSDVSSYLEGQAARFIAMLVKGRDAHKSSEVAHRFKDGEENFKALVLIAPAOYL 120
 DB 60 -----DHHKSEVA-----HDHAKSEVAHRFKDGEENFKALVLIAPAOYL 99
 QY 121 QGCPFEDHVLVNEVEFEFAKTCVADSASENCDSKSLHTLFGDKLCTVAATLRETYGEMADCC 180
 DB 100 QGCPFEDHVLVNEVEFEFAKTCVADSASENCDSKSLHTLFGDKLCTVAATLRETYGEMADCC 159
 QY 181 AKQEPERNECFLOHKDNPMLPRLVPRVDVWCTAIFHDNETFLKXLYEIAARHPFYA 240
 DB 160 AKQEPERNECFLOHKDNPMLPRLVPRVDVWCTAIFHDNETFLKXLYEIAARHPFYA 219
 QY 241 PELLFPAKRYKAAATECCOAAADKACLLPKLDELTDGSKASAKORLKCSLOKGRGAF 300
 DB 220 PELLFPAKRYKAAATECCOAAADKACLLPKLDELTDGSKASAKORLKCSLOKGRGAF 279
 QY 301 KANAVALISORFPAEFAEVSCLVTDLTQVTECHGDLLECADRADLAKYICENODSI 360
 DB 280 KANAVALISORFPAEFAEVSCLVTDLTQVTECHGDLLECADRADLAKYICENODSI 339
 QY 361 SSKLKECCCKPLKESHCIAEVNDENPADLPSTLAADPVESKDYCKRYAEKDYFLGMFL 420
 DB 340 SSKLKECCCKPLKESHCIAEVNDENPADLPSTLAADPVESKDYCKRYAEKDYFLGMFL 399
 QY 421 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKVDFEKKPLVEBPONLIKON 480

DB 400 YEYARRHPDYSVLLRLAKTYETTLKCCAAADPHECYAKVDFEKKPLVEBPONLIKON 459
 QY 481 CELFEQIGKYPONALVRYTKKPOVSTPTLVEVSRLGKYSCKCKHPEAKRMPCAED 540
 DB 460 CELFEQIGKYPONALVRYTKKPOVSTPTLVEVSRLGKYSCKCKHPEAKRMPCAED 519
 QY 541 YLSVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALBEVETVYPRFNAETTFHA 600
 DB 520 YLSVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALBEVETVYPRFNAETTFHA 579
 QY 601 DICTLSEKROIKQOTLALVELYKHKPKATKEQLKAMVDPAFVKECCCADDKETCPFAE 660
 DB 580 DICTLSEKROIKQOTLALVELYKHKPKATKEQLKAMVDPAFVKECCCADDKETCPFAE 639
 QY 661 GKXVAAASQALGL 674
 DB 640 GKXVAAASQALGL 653

RESULT 11

US-11-175-690-218
 ; Sequence 218, Application US/11175690
 ; Publication No. US20060014254A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Haselcline et al.
 ; TITLE OF INVENTION: Albumin Fusion Proteins
 ; FILE REFERENCE: PP605
 ; CURRENT APPLICATION NUMBER: US/11/175,690
 ; PCT/US04/001369
 ; PRIOR FILING DATE: 2005-07-07
 ; PRIOR APPLICATION NUMBER: US 60/441,305
 ; PRIOR FILING DATE: 2004-01-20
 ; PRIOR APPLICATION NUMBER: US 60/441,305
 ; PRIOR FILING DATE: 2003-01-22
 ; PRIOR APPLICATION NUMBER: US 60/453,201
 ; PRIOR FILING DATE: 2003-03-11
 ; PRIOR APPLICATION NUMBER: US 60/467,222
 ; PRIOR FILING DATE: 2003-05-02
 ; PRIOR APPLICATION NUMBER: US 60/472,816
 ; PRIOR FILING DATE: 2003-05-23
 ; PRIOR APPLICATION NUMBER: US 60/476,267
 ; PRIOR FILING DATE: 2003-06-06
 ; PRIOR APPLICATION NUMBER: US 60/505,172
 ; PRIOR FILING DATE: 2003-09-24
 ; PRIOR APPLICATION NUMBER: US 60/506,746
 ; PRIOR FILING DATE: 2003-09-30
 ; NUMBER OF SEQ ID NOS: 568
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 218
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-11-175-690-218

Query Match 95.0%; Score 3391; DB 7; Length 652;
 Best Local Similarity 96.0%; Pred. No. 2.2e-260;
 Matches 647; Conservative 1; Mismatches 4; Indels 22; Gaps 2;

QY 1 MNIFYIFLFLSLVQGIETHRRGSLDKRGEGFTSDVSSYLEGQAARFIAMLVKGRH 60
 DB 1 MNIFYIFLFLSLVQGIETHRRGSLDKRGEGFTSDVSSYLEGQAARFIAMLVKGRH 59
 QY 61 GEGFTSDVSSYLEGQAARFIAMLVKGRDAHKSSEVAHRFKDGEENFKALVLIAPAOYL 120
 DB 60 -----DHHKSEVA-----DHHKSEVAHRFKDGEENFKALVLIAPAOYL 98
 QY 121 QGCPFEDHVLVNEVEFEFAKTCVADSASENCDSKSLHTLFGDKLCTVAATLRETYGEMADCC 180
 DB 99 QGCPFEDHVLVNEVEFEFAKTCVADSASENCDSKSLHTLFGDKLCTVAATLRETYGEMADCC 158
 QY 181 AKQEPERNECFLOHKDNPMLPRLVPRVDVWCTAIFHDNETFLKXLYEIAARHPFYA 240
 DB 159 AKQEPERNECFLOHKDNPMLPRLVPRVDVWCTAIFHDNETFLKXLYEIAARHPFYA 218

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QY 241 PELLPFAKRYKAAFTTECCOAAADKAACTLPKLBDELDEGKASSAKORLKACASIQKFGERRAF 300
| | | | |
DB 219 PELLPFAKRYKAAFTTECCOAAADKAACTLPKLBDELDEGKASSAKORLKACASIQKFGERRAF 278
| | | | |
QY 301 KAAVAVARLSQRPFAKFAFVSKLVYTDLTQVHTTECCGDLLECGADDRADLAKYICENODSI 360
| | | | |
DB 279 KAAVAVARLSQRPFAKFAFVSKLVYTDLTQVHTTECCGDLLECGADDRADLAKYICENODSI 338
| | | | |
QY 361 SSKLKCECKEPLLEKSHCIAEVENDEMPADLPSLADPVEBSKDVCKNYAABADVFLGMFL 420
| | | | |
DB 339 SSKLKCECKEPLLEKSHCIAEVENDEMPADLPSLADPVEBSKDVCKNYAABADVFLGMFL 398
| | | | |
QY 421 YEYARRHPDYSVVLTLRLAKTYETTLLEKCCAAADPHECTAKVDFEKPVLVEBPONLIKON 480
| | | | |
DB 399 YEYARRHPDYSVVLTLRLAKTYETTLLEKCCAAADPHECTAKVDFEKPVLVEBPONLIKON 458
| | | | |
QY 481 CELFEOLEGYKFPONALVRYTKVPQVSTPVLVEBSRNIGKVGSKCKCHPEAKRMPCAED 540
| | | | |
DB 459 CELFEOLEGYKFPONALVRYTKVPQVSTPVLVEBSRNIGKVGSKCKCHPEAKRMPCAED 518
| | | | |
QY 541 YLSVAVNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALAEVDETYVPKEFNAETTFEFA 600
| | | | |
DB 519 YLSVAVNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALAEVDETYVPKEFNAETTFEFA 578
| | | | |
QY 601 DICTLSEKERQIKKQTLALVELVKKPKATKEQIKAVMDPFAFVEKCKKADDKETCFABE 660
| | | | |
DB 579 DICTLSEKERQIKKQTLALVELVKKPKATKEQIKAVMDPFAFVEKCKKADDKETCFABE 638
| | | | |
QY 661 GKGLVAASQAALGL 674
| | | | |
DB 639 GKGLVAASQAALGL 652
| | | | |

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RESULT 12

```

US-11-175-690-221
; Sequence 221, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselaine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 221
; LENGTH: 659
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-221

```

Query Match

Best Local Similarity 95.0%; Score 3390.5; DB 7; Length 659;

Matches 648; Conservative 1; Mismatches 9; Indels 17; Gaps 2;

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QY 1 KNIFYFLFLSLFVQGLSEHTHRRGSLDKRGSGTFTSDVSYLSEQAABFIAMLVKGRH 60
| | | | |

```

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DB 1 KNIFYFLFLSLFVQGLSEHTHRRGSLDKRGSGTFTSDVSYLSEQAABFIAMLVKGRH 59
| | | | |
QY 61 GEGTFTSDVSYLSEQAABFIAMLVKGRHDAHKSEVANHFRFQDGEENFKALVILAFAYQ 119
| | | | |
DB 60 -----DAHKSEVANHFRFQDGEENFKALVILAFAYQ 104
| | | | |
QY 120 LOCCPEEDHVKLVNVEYTFKTCVADSEANCDKSLHTLFGDKCTVATLRETYGEMADC 179
| | | | |
DB 105 LOCCPEEDHVKLVNVEYTFKTCVADSEANCDKSLHTLFGDKCTVATLRETYGEMADC 164
| | | | |
QY 180 CAKQBERNECFLOKHDDNPNLPRVPRPEVDVCTAFHNEETFLKTLYEIARHPYFY 239
| | | | |
DB 165 CAKQBERNECFLOKHDDNPNLPRVPRPEVDVCTAFHNEETFLKTLYEIARHPYFY 224
| | | | |
QY 240 ABELLFPAKRYKAAFTTECCOAAADKAACTLPKLBDELDEGKASSAKORLKACASIQKFGERRA 299
| | | | |
DB 225 ABELLFPAKRYKAAFTTECCOAAADKAACTLPKLBDELDEGKASSAKORLKACASIQKFGERRA 284
| | | | |
QY 300 KAAVAVARLSQRPFAKFAFVSKLVYTDLTQVHTTECCGDLLECGADDRADLAKYICENODS 359
| | | | |
DB 285 KAAVAVARLSQRPFAKFAFVSKLVYTDLTQVHTTECCGDLLECGADDRADLAKYICENODS 344
| | | | |
QY 360 ISSKLKCECKEPLLEKSHCIAEVENDEMPADLPSLADPVEBSKDVCKNYAABADVFLGMFL 419
| | | | |
DB 345 ISSKLKCECKEPLLEKSHCIAEVENDEMPADLPSLADPVEBSKDVCKNYAABADVFLGMFL 404
| | | | |
QY 420 LYEYARRHPDYSVVLTLRLAKTYETTLLEKCCAAADPHECTAKVDFEKPVLVEBPONLIKQ 479
| | | | |
DB 405 LYEYARRHPDYSVVLTLRLAKTYETTLLEKCCAAADPHECTAKVDFEKPVLVEBPONLIKQ 464
| | | | |
QY 480 NCELPEOLGEYKFPONALVRYTKVPQVSTPVLVEBSRNIGKVGSKCKCHPEAKRMPCAE 539
| | | | |
DB 465 NCELPEOLGEYKFPONALVRYTKVPQVSTPVLVEBSRNIGKVGSKCKCHPEAKRMPCAE 524
| | | | |
QY 540 DLSVAVNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALAEVDETYVPKEFNAETTFEFA 599
| | | | |
DB 525 DLSVAVNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALAEVDETYVPKEFNAETTFEFA 584
| | | | |
QY 600 ADICTLSEKERQIKKQTLALVELVKKPKATKEQIKAVMDPFAFVEKCKKADDKETCFABE 659
| | | | |
DB 585 ADICTLSEKERQIKKQTLALVELVKKPKATKEQIKAVMDPFAFVEKCKKADDKETCFABE 644
| | | | |
QY 660 BGKGLVAASQAALGL 674
| | | | |
DB 645 BGKGLVAASQAALGL 659
| | | | |

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RESULT 13

```

US-11-175-690-214
; Sequence 214, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselaine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30

```

NUMBER OF SEQ ID NOS: 568
 SOFTWARE: Patentin Ver. 2.0
 SEQ ID NO 214
 LENGTH: 648
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-11-175-690-214

Query Match 95.0%; Score 3389; DB 7; Length 648;
 Best Local Similarity 95.5%; Pred. No. 3.2e-260;
 Matches 644; Conservative 1; Mismatches 3; Indels 26; Gaps 1;

1 MNIFYFLPLSVQGLHETRRGSLDKRGGSTFTSDVSSYLEGOAKEFIAMLVKGRH 60
 1 MNIFYFLPLSVQGLHETRRGSLDKRGGSTFTSDVSSYLEGOAKEFIAMLVKGRD 60
 61 GEGFTSDVSSYLEGOAKEFIAMLVKGRDAKSEVAAHFKDLGGEENFKALVILAAQYL 120
 61 AH-----KDAHSEVAAHFKDLGGEENFKALVILAAQYL 94
 121 QCCPFEDHYKLVNEVTEFAKTCVADSAENCDKSLHTLFGDKLCTVATLRETYGEMADCC 180
 95 QCCPFEDHYKLVNEVTEFAKTCVADSAENCDKSLHTLFGDKLCTVATLRETYGEMADCC 154
 181 AKQEPERNCEFLQKODNPNLPRLVREVDVWCTAFHNEETFLKYLVEIARRHPIFYA 240
 155 AKQEPERNCEFLQKODNPNLPRLVREVDVWCTAFHNEETFLKYLVEIARRHPIFYA 214
 241 PELLPFAKRYKAFTTECCQAADRAACLPKLDLDRBGKASAKORLKCASLOKFGERRAF 300
 215 PELLPFAKRYKAFTTECCQAADRAACLPKLDLDRBGKASAKORLKCASLOKFGERRAF 274
 301 KANAVALRSQRPFAKFAEVAISKLVTDLTIVHTTECHGDLLECADRADLAKYICENODSI 360
 275 KANAVALRSQRPFAKFAEVAISKLVTDLTIVHTTECHGDLLECADRADLAKYICENODSI 334
 361 SSGLKCCCKEPFLKESHCIAEVENDEMPADLPBLADPVESKOVCKNVAEAKOVFLGMFL 420
 335 SSGLKCCCKEPFLKESHCIAEVENDEMPADLPBLADPVESKOVCKNVAEAKOVFLGMFL 394
 421 YEYARRHPDYSVVLRLAKTYETTLKCCAAADPHECVAKVDFEKPVLVEBPONL IKON 480
 395 YEYARRHPDYSVVLRLAKTYETTLKCCAAADPHECVAKVDFEKPVLVEBPONL IKON 454
 481 CELFEOLEGYKFNQALVRYTKKVPQVSTPTLVEVSRLGKVGSKCKKHEAKRMPCAED 540
 455 CELFEOLEGYKFNQALVRYTKKVPQVSTPTLVEVSRLGKVGSKCKKHEAKRMPCAED 514
 541 YLSVLTNOLCVLHEKTPVSDRYTKCTESLVNRRPCFSALBVDETYVPKFNASTFTFHA 600
 515 YLSVLTNOLCVLHEKTPVSDRYTKCTESLVNRRPCFSALBVDETYVPKFNASTFTFHA 574
 601 DICTLSEKROIKKQALVELVYGHKPKATKEOLKAVMDPFAAFVEKCKKADDKETCFABE 660
 575 DICTLSEKROIKKQALVELVYGHKPKATKEOLKAVMDPFAAFVEKCKKADDKETCFABE 634
 661 GKGLVAASQAALGL 674
 635 GKGLVAASQAALGL 648

RESULT 14
 US-11-175-690-224
 Sequence 224, Application US/11175690
 Publication No. US20060014254A1
 GENERAL INFORMATION:
 APPLICANT: Haegeltine et al.
 TITLE OF INVENTION: Albumin Fusion Proteins
 FILE REFERENCE: EP605
 CURRENT APPLICATION NUMBER: US/11/175,690
 CURRENT FILING DATE: 2005-07-07
 PRIOR APPLICATION NUMBER: PCT/US04/001369
 PRIOR FILING DATE: 2004-01-20

PRIOR APPLICATION NUMBER: US 60/441,305
 PRIOR FILING DATE: 2003-01-22
 PRIOR APPLICATION NUMBER: US 60/453,201
 PRIOR FILING DATE: 2003-03-11
 PRIOR APPLICATION NUMBER: US 60/467,222
 PRIOR FILING DATE: 2003-05-02
 PRIOR APPLICATION NUMBER: US 60/472,816
 PRIOR FILING DATE: 2003-05-23
 PRIOR APPLICATION NUMBER: US 60/476,267
 PRIOR FILING DATE: 2003-06-06
 PRIOR APPLICATION NUMBER: US 60/505,172
 PRIOR FILING DATE: 2003-09-24
 PRIOR APPLICATION NUMBER: US 60/506,746
 PRIOR FILING DATE: 2003-09-30
 NUMBER OF SEQ ID NOS: 568
 SOFTWARE: Patentin Ver. 2.0
 SEQ ID NO 224
 LENGTH: 651
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-11-175-690-224

Query Match 94.9%; Score 3387.5; DB 7; Length 651;
 Best Local Similarity 95.8%; Pred. No. 4.2e-260;
 Matches 646; Conservative 1; Mismatches 4; Indels 23; Gaps 2;

1 MNIFYFLPLSVQGLHETRRGSLDKRGGSTFTSDVSSYLEGOAKEFIAMLVKGRH 60
 1 MNIFYFLPLSVQGLHETRRGSLDKRGGSTFTSDVSSYLEGOAKEFIAMLVKGRD 60
 61 GEGFTSDVSSYLEGOAKEFIAMLVKGRDAKSEVAAHFKDLGGEENFKALVILAAQYL 120
 61 AH---KSEV-----DAKSEVAAHFKDLGGEENFKALVILAAQYL 97
 121 QCCPFEDHYKLVNEVTEFAKTCVADSAENCDKSLHTLFGDKLCTVATLRETYGEMADCC 180
 98 QCCPFEDHYKLVNEVTEFAKTCVADSAENCDKSLHTLFGDKLCTVATLRETYGEMADCC 157
 181 AKQEPERNCEFLQKODNPNLPRLVREVDVWCTAFHNEETFLKYLVEIARRHPIFYA 240
 158 AKQEPERNCEFLQKODNPNLPRLVREVDVWCTAFHNEETFLKYLVEIARRHPIFYA 217
 241 PELLPFAKRYKAFTTECCQAADRAACLPKLDLDRBGKASAKORLKCASLOKFGERRAF 300
 218 PELLPFAKRYKAFTTECCQAADRAACLPKLDLDRBGKASAKORLKCASLOKFGERRAF 277
 301 KANAVALRSQRPFAKFAEVAISKLVTDLTIVHTTECHGDLLECADRADLAKYICENODSI 360
 278 KANAVALRSQRPFAKFAEVAISKLVTDLTIVHTTECHGDLLECADRADLAKYICENODSI 337
 361 SSGLKCCCKEPFLKESHCIAEVENDEMPADLPBLADPVESKOVCKNVAEAKOVFLGMFL 420
 338 SSGLKCCCKEPFLKESHCIAEVENDEMPADLPBLADPVESKOVCKNVAEAKOVFLGMFL 397
 421 YEYARRHPDYSVVLRLAKTYETTLKCCAAADPHECVAKVDFEKPVLVEBPONL IKON 480
 398 YEYARRHPDYSVVLRLAKTYETTLKCCAAADPHECVAKVDFEKPVLVEBPONL IKON 457
 481 CELFEOLEGYKFNQALVRYTKKVPQVSTPTLVEVSRLGKVGSKCKKHEAKRMPCAED 540
 458 CELFEOLEGYKFNQALVRYTKKVPQVSTPTLVEVSRLGKVGSKCKKHEAKRMPCAED 517
 541 YLSVLTNOLCVLHEKTPVSDRYTKCTESLVNRRPCFSALBVDETYVPKFNASTFTFHA 600
 518 YLSVLTNOLCVLHEKTPVSDRYTKCTESLVNRRPCFSALBVDETYVPKFNASTFTFHA 577
 601 DICTLSEKROIKKQALVELVYGHKPKATKEOLKAVMDPFAAFVEKCKKADDKETCFABE 660
 578 DICTLSEKROIKKQALVELVYGHKPKATKEOLKAVMDPFAAFVEKCKKADDKETCFABE 637
 661 GKGLVAASQAALGL 674
 638 GKGLVAASQAALGL 651

RESULT 15
US-11-175-690-212
; Sequence 212, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselaine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; PRIOR FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 212
; LENGTH: 647
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-212

Query Match 94.9%; Score 3386.5; DB 7; Length 647;
Best Local Similarity 95.5%; Pred. No. 5e-260;
Matches 644; Conservative 0; Mismatches 3; Indels 27; Gaps 1;

QY 1 MNIFYFLFLSVQGLFHTHRGSLDKRHGEGTFTSDVSYLEGQAKEFIAMLVKGRH 60
DB 1 MNIFYFLFLSVQGLFHTHRGSLDKRHGEGTFTSDVSYLEGQAKEFIAMLVKGR 59
QY 61 GEGTFTSDVSYLEGQAKEFIAMLVKGRDAHKEVAAHFKDAGEENFKALVLIAPQYL 120
DB 60 -----DAHDAHKEVAAHFKDAGEENFKALVLIAPQYL 93
QY 121 QCCPFEDHVKLVNEVEFAKTCVADBSAENCDSLHTLFGDKLCTVATLRETYGEMADCC 180
DB 94 QCCPFEDHVKLVNEVEFAKTCVADBSAENCDSLHTLFGDKLCTVATLRETYGEMADCC 153
QY 181 AQOEPERNCFLOHNDNPNLPRLVPEVDVWCTAFHNEETFLKYLVEIARRHPFYA 240
DB 154 AQOEPERNCFLOHNDNPNLPRLVPEVDVWCTAFHNEETFLKYLVEIARRHPFYA 213
QY 241 PELLPFAKRYKAFTCCOAAACILPKLDELDEGRKASAKORLKCASLOKGERAF 300
DB 214 PELLPFAKRYKAFTCCOAAACILPKLDELDEGRKASAKORLKCASLOKGERAF 273
QY 301 KAAVAVALSQRPPKAEFAVSKLVTDLTVHTECCHGDLLECADRADLAKYICENQDSI 360
DB 274 KAAVAVALSQRPPKAEFAVSKLVTDLTVHTECCHGDLLECADRADLAKYICENQDSI 333
QY 361 SSKLKECCCKPLLEKSHCTAEVNDENMPADLPGLADPFESKDVCKNYAEAKDVFGLMFL 420
DB 334 SSKLKECCCKPLLEKSHCTAEVNDENMPADLPGLADPFESKDVCKNYAEAKDVFGLMFL 393
QY 421 YEYARHPYSVVLLRLAKTYETTLKCCAAADPHACYAKVDEPKPLVEEPONLIKON 480
DB 394 YEYARHPYSVVLLRLAKTYETTLKCCAAADPHACYAKVDEPKPLVEEPONLIKON 453
QY 481 CELFEQLGEYKQONALLVRYTKKVPQVSTPLIVEVSRNLGKVGSKCKHPEAKRMPCAD 540

DB 454 CELFEQLGEYKQONALLVRYTKKVPQVSTPLIVEVSRNLGKVGSKCKHPEAKRMPCAD 513
QY 541 YLSVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALIEVDITYVKEFNAETFTFA 600
DB 514 YLSVVLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALIEVDITYVKEFNAETFTFA 573
QY 601 DICTLSEKERQIKQOTALVELVKEHKPKATKEQLKAVMDFAAFVEKCKADDKETCFABE 660
DB 574 DICTLSEKERQIKQOTALVELVKEHKPKATKEQLKAVMDFAAFVEKCKADDKETCFABE 633
QY 661 GKQVVAASQAAAGL 674
DB 634 GKQVVAASQAAAGL 647

Search completed: April 19, 2006, 12:36:41
Job time : 24.4986 secs

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OM protein - protein search, using bw model

Run on: April 19, 2006, 11:56:31 ; Search time 153.004 Seconds
(without alignment)
1852.232 Million cell updates/sec

Title: US-10-775-180-447_COPY_30_674
Perfect score: 3417
Sequence: 1 HEBGRTSVSYSLBEGQAAK.....TCFAERGGKLVAAAGAAAGL 645

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_21:*

- 1: _geneseqp1980s:*
- 2: _geneseqp1990s:*
- 3: _geneseqp2000s:*
- 4: _geneseqp2001s:*
- 5: _geneseqp2002s:*
- 6: _geneseqp2003as:*
- 7: _geneseqp2003bs:*
- 8: _geneseqp2004s:*
- 9: _geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the target being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	3417	100.0	662	7	ADP16526 Human alb
2	3417	100.0	662	7	ADH21814 Human alb
3	3417	100.0	663	7	ADP16512 Human alb
4	3417	100.0	663	7	ADH21803 Human alb
5	3417	100.0	664	7	ADP16510 Human alb
6	3417	100.0	664	7	ADH21801 Human alb
7	3417	100.0	668	7	ADP16524 Human alb
8	3417	100.0	668	7	ADH21812 Human alb
9	3417	100.0	669	7	ADP16144 Human alb
10	3417	100.0	669	7	ADH21622 Human alb
11	3417	100.0	674	7	ADP16193 Human alb
12	3417	100.0	674	7	ADH21650 Human alb
13	3417	100.0	674	9	ADW45202 K. lactis
14	3417	100.0	730	7	ADP16525 Human alb
15	3417	100.0	730	7	ADH21813 Human alb
16	3417	100.0	915	9	ADW45204 K. lactis
17	3411	99.8	662	7	ADP16529 Human alb
18	3411	99.8	662	7	ADH21817 Human alb
19	3411	99.8	663	7	ADP16513 Human alb
20	3411	99.8	663	7	ADH21804 Human alb
21	3411	99.8	664	7	ADP16511 Human alb
22	3411	99.8	664	7	ADH21802 Human alb
23	3411	99.8	668	7	ADP16528 Human alb
24	3411	99.8	668	7	ADH21816 Human alb

25	3411	99.8	669	7	ADP16150 Human alb
26	3411	99.8	669	7	ADH21628 Human alb
27	3411	99.8	730	7	ADP16527 Human alb
28	3411	99.8	730	7	ADH21815 Human alb
29	3405	99.6	669	7	ADP16149 Human alb
30	3405	99.6	669	7	ADP16148 Human alb
31	3405	99.6	669	7	ADP16145 Human alb
32	3405	99.6	669	7	ADP16146 Human alb
33	3405	99.6	669	7	ADH21624 Human alb
34	3405	99.6	669	7	ADH21626 Human alb
35	3405	99.6	669	7	ADH21623 Human alb
36	3405	99.6	669	7	ADH21627 Human alb
37	3397	99.4	667	7	ADP16147 Human alb
38	3397	99.4	667	7	ADH21625 Human alb
39	3285	95.6	639	7	ADP15119 Human alb
40	3285	95.6	639	7	ADH21334 Human alb
41	3259	95.4	639	7	ADP15116 Human alb
42	3259	95.4	639	7	ADH21332 Human alb
43	3259	95.4	700	7	ADP16523 Human alb
44	3254	95.2	646	9	ADW45219 K. lactis
45	3253.5	95.2	647	9	ADW45208 K. lactis

ALIGNMENTS

RESULT 1
ADP16526
ID ADP16526 standard; protein; 662 AA.
AC ADP16526;
XX
DT 12-FEB-2004 (first entry)
XX
DE Human albumin therapeutic fusion protein SegID1623.
XX
KW albumin fusion protein; albumin activity; human serum albumin;
KW serum osmotic pressure; shelf-life; stability; antidiabetic;
KW gene therapy; diabetes mellitus; human.
XX
XX Chimeric.
XX OS Homo sapiens.
XX PN WO2003060071-A2.
XX
XX 24-JUL-2003.
XX
XX 23-DEC-2002; 2002WO-US040891.
XX
XX 21-DEC-2001; 2001US-0341811P.
XX 24-JAN-2002; 2002US-0350358P.
XX 28-JAN-2002; 2002US-0351360P.
XX 26-FEB-2002; 2002US-0359370P.
XX 28-FEB-2002; 2002US-0360000P.
XX 27-MAR-2002; 2002US-0367500P.
XX 08-APR-2002; 2002US-0370227P.
XX 10-MAY-2002; 2002US-0378950P.
XX 24-MAY-2002; 2002US-0382617P.
XX 28-MAY-2002; 2002US-0383123P.
XX 05-JUN-2002; 2002US-0385708P.
XX 10-JUL-2002; 2002US-0394625P.
XX 24-JUL-2002; 2002US-0398008P.
XX 09-AUG-2002; 2002US-0402131P.
XX 13-AUG-2002; 2002US-0402708P.
XX 18-SEP-2002; 2002US-0411355P.
XX 18-SEP-2002; 2002US-0411426P.
XX 02-OCT-2002; 2002US-0414984P.
XX 11-OCT-2002; 2002US-0417611P.
XX 23-OCT-2002; 2002US-0420246P.
XX 05-NOV-2002; 2002US-0423623P.
XX
XX (HUMA-) HUMAN GENOME SCI INC.
XX (DELZ) DELTA BIOTECHNOLOGY LTD.

PA (PRIN-) PRINCIPAL PHARM CORP.
 XX Balance DJ, Turner AJ, Rosen CA, Haseltine WA;
 XX WPI; 2003-598517/56.
 DR New albumin fusion protein, useful for preparing a composition for
 XX treating diabetes mellitus.
 PT Example 4; SEQ ID NO 1623; 24pp; English.
 XX
 XX This invention relates to a novel albumin fusion protein having albumin
 CC or biological activity. Human serum albumin is responsible for a
 CC significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion of
 CC albumin to a therapeutic protein may increase shelf-life and stability of
 CC the therapeutic protein. The albumin fusion protein of the invention may
 CC allow production of compositions with antidiabetic activity whilst the
 CC nucleotide sequence which encodes it may be useful for gene therapy. The
 CC albumin fusion protein is useful for preparing a composition for treating
 CC diabetes mellitus. The present sequence is the amino acid sequence of a
 CC novel full-length human albumin therapeutic fusion protein of the
 CC invention. Note: The sequence data for this patent did not form part of
 CC the printed specification, but was obtained in electronic format directly
 CC from WIPO at ftp.wipo.int/pub/publishseqpt_sequences
 CC
 XX Sequence 662 AA;

Query Match 100.0%; Score 3417; DB 7; Length 662;
 Best Local Similarity 100.0%; Pred. No. 3,2e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSEGTFTSVSYLSEGOAKEFIAMLVKGRHSGFTSDVSSTLSEGOAKEFIAMLVKGR 60
 DB 18 HSEGTFTSVSYLSEGOAKEFIAMLVKGRHSGFTSDVSSTLSEGOAKEFIAMLVKGR 77
 QY 61 DAHSEVAFKPOLGSENFKALVLAFAOYLQCPEDHYKLVNVEYTERPAKTCVADSEAE 120
 DB 78 DAHSEVAFKPOLGSENFKALVLAFAOYLQCPEDHYKLVNVEYTERPAKTCVADSEAE 137
 QY 121 NCDKSLHTLFGDLCVATLRETYGEMADCCAKQEPERRNECFLOHDDNPNLPRVLRPV 180
 DB 138 NCDKSLHTLFGDLCVATLRETYGEMADCCAKQEPERRNECFLOHDDNPNLPRVLRPV 197
 QY 181 DWMCATFHNNBETFLKKLYEIRRHPIYFAPELLEFFAKRYKAFTCCOAAADKACALP 240
 DB 198 DWMCATFHNNBETFLKKLYEIRRHPIYFAPELLEFFAKRYKAFTCCOAAADKACALP 257
 QY 241 KLDLDEDEGKASSAKQRLKASIQKTGERAFKAMAVARLSQRPKAEPAVSKLVTDLTK 300
 DB 258 KLDLDEDEGKASSAKQRLKASIQKTGERAFKAMAVARLSQRPKAEPAVSKLVTDLTK 317
 QY 301 VHTTECHGULLBEADRADLAKYICENQDSISCKLECKECPKLEKSHCIAVENDEMPA 360
 DB 318 VHTTECHGULLBEADRADLAKYICENQDSISCKLECKECPKLEKSHCIAVENDEMPA 377
 QY 361 DLPSLAADVEESKDVCKNTAAKADVFLGMEFLYVARHDPYSVLLRLAKYETTLK 420
 DB 378 DLPSLAADVEESKDVCKNTAAKADVFLGMEFLYVARHDPYSVLLRLAKYETTLK 437
 QY 421 CAADPHCYAKVDFEFPKLVBEPPNLIKONCELFPQOLGEYKFNALLVRYTKKVPQVST 480
 DB 438 CAADPHCYAKVDFEFPKLVBEPPNLIKONCELFPQOLGEYKFNALLVRYTKKVPQVST 497
 QY 481 PTLVSRNLGKGVKSCCKHPEKAKMPCADYISVTLNQLCTHETTPSDRYTKCTCS 540
 DB 498 PTLVSRNLGKGVKSCCKHPEKAKMPCADYISVTLNQLCTHETTPSDRYTKCTCS 557
 QY 541 LVNRRCCFSALDEVETTYVPKFAETFTPADICTLSEKROIKKOTALVELVKHKPKAT 600
 DB 558 LVNRRCCFSALDEVETTYVPKFAETFTPADICTLSEKROIKKOTALVELVKHKPKAT 617
 QY 601 KEQLKAVMDPFAFVEKCKKADKCTCPAEBGKLVAAASQALGL 645

DB 618 KEQLKAVMDPFAFVEKCKKADKCTCPAEBGKLVAAASQALGL 662
 RESULT 2
 ID ADH21814
 ADH21814 standard; protein; 662 AA.
 AC ADH21814;
 XX
 DT 11-MAR-2004 (first entry)
 XX
 DE Human albumin/GLP-1(7-36(A86)) fusion protein, SEQ ID NO:611.
 XX
 XX Fusion protein; human serum albumin; HSA; therapeutic protein;
 KW shelf-life; in vitro biological activity; in vivo biological activity;
 KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
 KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiac;
 KW anorectic; ophthalmological; gene therapy.
 XX
 OS Synthetic.
 OS Chimeric.
 OS Homo sapiens.
 PN WO2003059934-A2.
 XX
 PD 24-JUL-2003.
 XX
 PF 23-DEC-2002; 2002WO-US040892.
 XX
 PR 21-DEC-2001; 2001US-034181P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360000P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-JUL-2002; 2002US-0396008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 XX
 PI Rosen CA, Haseltine WA;
 XX
 DR WPI; 2003-598501/56.
 XX
 PT New albumin fusion protein, useful for preparing a composition for
 PT treating diabetes mellitus.
 XX
 XX Disclosure; SEQ ID NO 611; 1086pp; English.
 XX
 XX The invention relates to fusion proteins comprising human serum albumin
 CC (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
 CC antibody or peptide or their variants or fragments. The therapeutic
 CC protein may be fused to the N-terminus, the C-terminus or both termini of
 CC albumin via a linker. The albumin component of the fusion proteins
 CC prolongs the shelf-life and the in vitro and vivo biological activity of
 CC the proteins compared with those of the corresponding therapeutic
 CC proteins on their own. The invention also relates to nucleic acids
 CC encoding albumin fusion proteins, vectors and host cells comprising an
 CC albumin fusion protein nucleic acid, compositions and kits comprising an
 CC albumin fusion protein, the method of extending the shelf-life of a
 CC therapeutic protein by fusion with albumin, and the treatment of disease
 CC using an albumin fusion protein. The albumin fusion proteins may be used
 CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-

CC related conditions. Specifically the albumin fusion proteins may be used
 CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
 CC (especially neuropathy), retinopathy, cardiovascular disorders
 CC (especially heart disease, renal disorders and obesity. The proteins may
 CC also be used in a method of maintaining a basal glucose level in a
 CC patient and in a method for losing weight. The present sequence is
 CC related to the invention.

XX
 SQ Sequence 662 AA;

Query Match 100.0%; Score 3417; DB 7; Length 662;
 Best Local Similarity 100.0%; Pred. No. 3.2e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HGEGTTSDVSYLSEGOAAKEFIAMLVKGRHGSGTSDVSYLSEGOAAKEFIAMLVKGR 60
 DB HGEGTTSDVSYLSEGOAAKEFIAMLVKGRHGSGTSDVSYLSEGOAAKEFIAMLVKGR 77
 QY 61 DAHSEVAHRFKOLGSENFALVLIAPAOYLQCCPEHDVKLVNTEPAKTCVADESAR 120
 DB DAHSEVAHRFKOLGSENFALVLIAPAOYLQCCPEHDVKLVNTEPAKTCVADESAR 137
 QY 78 DAHSEVAHRFKOLGSENFALVLIAPAOYLQCCPEHDVKLVNTEPAKTCVADESAR 137
 DB DAHSEVAHRFKOLGSENFALVLIAPAOYLQCCPEHDVKLVNTEPAKTCVADESAR 137
 QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNBCFLOHKODNENLPRIVPREV 180
 DB NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNBCFLOHKODNENLPRIVPREV 197
 QY 138 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNBCFLOHKODNENLPRIVPREV 197
 DB NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNBCFLOHKODNENLPRIVPREV 197
 QY 181 DVNCTAFHNDNEFTLKKYLYEIRARHPFYAPBELLFPACKYKAAFTTECCOADAACALPR 240
 DB DVNCTAFHNDNEFTLKKYLYEIRARHPFYAPBELLFPACKYKAAFTTECCOADAACALPR 257
 QY 198 DVNCTAFHNDNEFTLKKYLYEIRARHPFYAPBELLFPACKYKAAFTTECCOADAACALPR 257
 DB DVNCTAFHNDNEFTLKKYLYEIRARHPFYAPBELLFPACKYKAAFTTECCOADAACALPR 257
 QY 241 KDELDEGKASAKORLKASLOKGERAFKAMAVARISORPPKAFASVSLVDTLK 300
 DB KDELDEGKASAKORLKASLOKGERAFKAMAVARISORPPKAFASVSLVDTLK 317
 QY 258 KDELDEGKASAKORLKASLOKGERAFKAMAVARISORPPKAFASVSLVDTLK 317
 DB KDELDEGKASAKORLKASLOKGERAFKAMAVARISORPPKAFASVSLVDTLK 317
 QY 301 VHTECCHGDLLECAADPRADIACYICENODSISSTLKECKECPILBKSHCIAVENDEMPA 360
 DB VHTECCHGDLLECAADPRADIACYICENODSISSTLKECKECPILBKSHCIAVENDEMPA 377
 QY 318 VHTECCHGDLLECAADPRADIACYICENODSISSTLKECKECPILBKSHCIAVENDEMPA 377
 DB VHTECCHGDLLECAADPRADIACYICENODSISSTLKECKECPILBKSHCIAVENDEMPA 377
 QY 361 DLPSLAADPVESKDVCKNVAEADVFGLMFLYERARHPDYSVLLIRLAKTYETTLK 420
 DB DLPSLAADPVESKDVCKNVAEADVFGLMFLYERARHPDYSVLLIRLAKTYETTLK 437
 QY 378 DLPSLAADPVESKDVCKNVAEADVFGLMFLYERARHPDYSVLLIRLAKTYETTLK 437
 DB DLPSLAADPVESKDVCKNVAEADVFGLMFLYERARHPDYSVLLIRLAKTYETTLK 437
 QY 421 CAADAPHECYAKYFDEPKPLVEBPONLIKONCELFOLGKYKONALLVYTKKVPVOST 480
 DB CAADAPHECYAKYFDEPKPLVEBPONLIKONCELFOLGKYKONALLVYTKKVPVOST 497
 QY 438 CAADAPHECYAKYFDEPKPLVEBPONLIKONCELFOLGKYKONALLVYTKKVPVOST 497
 DB CAADAPHECYAKYFDEPKPLVEBPONLIKONCELFOLGKYKONALLVYTKKVPVOST 497
 QY 481 PTLVEVRNIGKVGSKCKKPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 540
 DB PTLVEVRNIGKVGSKCKKPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 557
 QY 498 PTLVEVRNIGKVGSKCKKPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 557
 DB PTLVEVRNIGKVGSKCKKPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 557
 QY 541 LVNRRPCFSALVEDETVVPKEFNATFTFHADICTLSEKEROIKKQATLVELVHKPKAT 600
 DB LVNRRPCFSALVEDETVVPKEFNATFTFHADICTLSEKEROIKKQATLVELVHKPKAT 617
 QY 558 LVNRRPCFSALVEDETVVPKEFNATFTFHADICTLSEKEROIKKQATLVELVHKPKAT 617
 DB LVNRRPCFSALVEDETVVPKEFNATFTFHADICTLSEKEROIKKQATLVELVHKPKAT 617
 QY 601 KEOLKAVMDPPAAVFEKCKKADDEKTFAPBEGKLVAAQAALGL 645
 DB KEOLKAVMDPPAAVFEKCKKADDEKTFAPBEGKLVAAQAALGL 662
 QY 618 KEOLKAVMDPPAAVFEKCKKADDEKTFAPBEGKLVAAQAALGL 662
 DB KEOLKAVMDPPAAVFEKCKKADDEKTFAPBEGKLVAAQAALGL 662

RESULT 3
 ADP16512 standard; protein; 663 AA.
 ID ADP16512 standard; protein; 663 AA.
 AC ADP16512;
 ADP16512;

XX 12-FEB-2004 (first entry)

DE Human albumin therapeutic fusion protein SeqID1609.

XX albumin fusion protein; albumin activity; human serum albumin;
 KM serum osmotic pressure; shelf-life; stability; antidiabetic;
 KM gene therapy; diabetes mellitus; human.

OS Chimeric.
 OS Homo sapiens.

XX WO2003060071-A2.

PN 24-JUL-2003.

PD 23-DEC-2002; 2002WO-US040891.

PF 21-DEC-2001; 2001US-034181P.

PR 24-JAN-2002; 2002US-0350358P.

PR 28-JAN-2002; 2002US-0351360P.

PR 26-FEB-2002; 2002US-0359370P.

PR 28-FEB-2002; 2002US-0360000P.

PR 27-MAR-2002; 2002US-0367500P.

PR 08-APR-2002; 2002US-0370227P.

PR 10-MAY-2002; 2002US-0378950P.

PR 24-MAY-2002; 2002US-0382617P.

PR 28-MAY-2002; 2002US-0383123P.

PR 05-JUN-2002; 2002US-0385708P.

PR 10-JUL-2002; 2002US-0394625P.

PR 24-JUL-2002; 2002US-0398008P.

PR 09-AUG-2002; 2002US-0402131P.

PR 13-AUG-2002; 2002US-0402708P.

PR 18-SEP-2002; 2002US-0411355P.

PR 18-SEP-2002; 2002US-0411426P.

PR 02-OCT-2002; 2002US-0414984P.

PR 11-OCT-2002; 2002US-0417611P.

PR 23-OCT-2002; 2002US-0420246P.

PR 05-NOV-2002; 2002US-0423623P.

XX (HUMA-) HUMAN GENOME SCI INC.

PA (DELZ) DELTA BIOTECHNOLOGY LTD.

PA (PRIN-) PRINCIPAL PHARM CORP.

XX Ballance DJ, Turner AJ, Rosen CA, Haseltine WA;

PI WPI; 2003-598517/56.

DR New albumin fusion protein, useful for preparing a composition for

PT treating diabetes mellitus.

XX Example 4; SEQ ID NO 1609; 24pp; English.

PS This invention relates to a novel albumin fusion protein having albumin

XX or biological activity. Human serum albumin is responsible for a

CC significant proportion of the osmotic pressure of serum and also

CC functions as a carrier of endogenous and exogenous ligands. The fusion of

CC albumin to a therapeutic protein may increase shelf-life and stability of

CC the therapeutic protein. The albumin fusion protein of the invention may

CC allow production of compositions with antidiabetic activity whilst the

CC nucleotide sequence which encodes it may be useful for gene therapy. The

CC albumin fusion protein is useful for preparing a composition for treating

CC diabetes mellitus. The present sequence is the amino acid sequence of a

CC novel full-length human albumin therapeutic fusion protein of the

CC invention. Note: The sequence data for this patent did not form part of

CC the printed specification, but was obtained in electronic format directly

CC from Wipo at ftp.wipo.int/pub/publishneopt_sequences

XX Sequence 663 AA;

Query Match 100.0%; Score 3417; DB 7; Length 663;
 Best Local Similarity 100.0%; Pred. No. 3.2e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HGEGTTSDVSYLSEGOAAKEFIAMLVKGRHGSGTSDVSYLSEGOAAKEFIAMLVKGR 60
 DB HGEGTTSDVSYLSEGOAAKEFIAMLVKGRHGSGTSDVSYLSEGOAAKEFIAMLVKGR 78

QY 61 DAHSEVAHRFKOLGSENFALVLIAPAOYLQCCPEHDVKLVNTEPAKTCVADESAR 120
 DB DAHSEVAHRFKOLGSENFALVLIAPAOYLQCCPEHDVKLVNTEPAKTCVADESAR 138

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QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNECFLQHKDNDPNLPRIVREPV 180
Db 139 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNECFLQHKDNDPNLPRIVREPV 198
QY 181 DVMCTAFHNDNEETFLKKTLYETARHPYVYAPBELLFPAKRYKAATTECCQAADKAACLLP 240
Db 199 DVMCTAFHNDNEETFLKKTLYETARHPYVYAPBELLFPAKRYKAATTECCQAADKAACLLP 258
QY 241 KLDELRLDEGKASSAKQRLKASLOKFGERAFAKMAVARLSQRPFAEFAVSKLVTDLTK 300
Db 259 KLDELRLDEGKASSAKQRLKASLOKFGERAFAKMAVARLSQRPFAEFAVSKLVTDLTK 318
QY 301 VHTTECHGDLLECADRRADLAKYICENODSISSKLKECCERPLEKSHCIAVENDEMPA 360
Db 319 VHTTECHGDLLECADRRADLAKYICENODSISSKLKECCERPLEKSHCIAVENDEMPA 378
QY 361 DLPSLAADVESKDVCKNYAEAKDVLGMFLYEYARRHPDYSVLLLRLLAKTYETTLLEKC 420
Db 379 DLPSLAADVESKDVCKNYAEAKDVLGMFLYEYARRHPDYSVLLLRLLAKTYETTLLEKC 438
QY 421 CAAADPHECYAKVDFEFLVEBPONLIRQNCLEFQOLGEYKQNALIVRYTKVPOVST 480
Db 439 CAAADPHECYAKVDFEFLVEBPONLIRQNCLEFQOLGEYKQNALIVRYTKVPOVST 498
QY 481 PTLVEVSRLIGKVGSKCCCKHPEAKRMPCAEDYISVTLNOLCVLHEKTPVSDRYTKCTTES 540
Db 499 PTLVEVSRLIGKVGSKCCCKHPEAKRMPCAEDYISVTLNOLCVLHEKTPVSDRYTKCTTES 558
QY 541 LVNRRCPFSALVEDEYVYVPEFAETFTFHADICTLSEKEROIKKQTAIVELVKHKPKAT 600
Db 559 LVNRRCPFSALVEDEYVYVPEFAETFTFHADICTLSEKEROIKKQTAIVELVKHKPKAT 618
QY 601 KEOLKAVMDPFAAFVEKCKKADDEKTCFAEBEGKULVAASQAALGL 645
Db 619 KEOLKAVMDPFAAFVEKCKKADDEKTCFAEBEGKULVAASQAALGL 663

RESULT 4
ADH21803
ID ADH21803 standard; protein, 663 AA.
XX
AC ADH21803;
XX
DT 11-MAR-2004 (first entry)
XX
DE Human albumin/IGLp-1(7-36(A86)) fusion protein, SEQ ID NO:600.
XX
KW Fusion protein; human serum albumin; HSA; therapeutic protein;
KW shelf-life; in vitro biological activity; in vivo biological activity;
KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiac;
KW anorectic; ophthalmological; gene therapy.
XX
OS Chimeric.
OS Homo sapiens.
XX
PN WO2003059934-A2.
XX
PD 24-JUL-2003.
XX
PF 23-DEC-2002; 2002WO-US040892.
XX
PR 21-DEC-2001; 2001US-034181P.
PR 24-JAN-2002; 2002US-0350358P.
PR 26-FEB-2002; 2002US-0359370P.
PR 28-FEB-2002; 2002US-0360000P.
PR 27-MAR-2002; 2002US-0367500P.
PR 08-APR-2002; 2002US-0370227P.
PR 10-MAY-2002; 2002US-0378850P.
PR 24-JUL-2002; 2002US-0398008P.
PR 09-AUG-2002; 2002US-0402131P.
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PR 13-AUG-2002; 2002US-0402708P.
PR 18-SEP-2002; 2002US-0411355P.
PR 02-OCT-2002; 2002US-0419984P.
PR 11-OCT-2002; 2002US-0417611P.
PR 23-OCT-2002; 2002US-0420246P.
PR 05-NOV-2002; 2002US-0423623P.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Rosen CA, Haeseltine WA;
XX MPI; 2003-598501/56.
XX
PT New albumin fusion protein, useful for preparing a composition for
PT treating diabetes mellitus.
XX
PS Disclosure; SEQ ID NO 600; 1066pp; English.
XX
CC The invention relates to fusion proteins comprising human serum albumin
CC (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
CC antibody or peptide or their variants or fragments. The therapeutic
CC protein may be fused to the N-terminus, the C-terminus or both termini of
CC albumin via a linker. The albumin component of the fusion proteins
CC prolongs the shelf-life and the in vitro and vivo biological activity of
CC the proteins compared with those of the corresponding therapeutic
CC proteins on their own. The invention also relates to nucleic acids
CC encoding albumin fusion proteins, vectors and host cells comprising an
CC albumin fusion protein nucleic acid, compositions and kits comprising an
CC albumin fusion protein, the method of extending the shelf-life of a
CC therapeutic protein by fusion with albumin, and the treatment of disease
CC using an albumin fusion protein. The albumin fusion proteins may be used
CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
CC related conditions. Specifically the albumin fusion proteins may be used
CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
CC (especially neuropathy), retinopathy, cardiovascular disorders
CC (especially heart disease, renal disorders and obesity). The proteins may
CC also be used in a method of maintaining a basal glucose level in a
CC patient and in a method for losing weight. The present sequence is
CC related to the invention.
XX
SQ Sequence 663 AA;
XX
Query Match 100.0%; Score 3417; DB 7; Length 663;
Best Local Similarity 100.0%; Pred. No. 3.2e-283;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 HGEGFTSDVSSYSLGQAKERIAMLVKGRHGEFTSDVSSYSLGQAKERIAMLVKGR 60
Db 19 HGEGFTSDVSSYSLGQAKERIAMLVKGRHGEFTSDVSSYSLGQAKERIAMLVKGR 78
QY 61 DAHKSEVARRFPDLGEENFKALVLIAPAOYLQCCPEEDHVKLNVNTEPAKTCVADESA 120
Db 79 DAHKSEVARRFPDLGEENFKALVLIAPAOYLQCCPEEDHVKLNVNTEPAKTCVADESA 138
QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNECFLQHKDNDPNLPRIVREPV 180
Db 139 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNECFLQHKDNDPNLPRIVREPV 198
QY 181 DVMCTAFHNDNEETFLKKTLYETARHPYVYAPBELLFPAKRYKAATTECCQAADKAACLLP 240
Db 199 DVMCTAFHNDNEETFLKKTLYETARHPYVYAPBELLFPAKRYKAATTECCQAADKAACLLP 258
QY 241 KLDELRLDEGKASSAKQRLKASLOKFGERAFAKMAVARLSQRPFAEFAVSKLVTDLTK 300
Db 259 KLDELRLDEGKASSAKQRLKASLOKFGERAFAKMAVARLSQRPFAEFAVSKLVTDLTK 318
QY 301 VHTTECHGDLLECADRRADLAKYICENODSISSKLKECCERPLEKSHCIAVENDEMPA 360
Db 319 VHTTECHGDLLECADRRADLAKYICENODSISSKLKECCERPLEKSHCIAVENDEMPA 378
QY 361 DLPSLAADVESKDVCKNYAEAKDVLGMFLYEYARRHPDYSVLLLRLLAKTYETTLLEKC 420
Db 379 DLPSLAADVESKDVCKNYAEAKDVLGMFLYEYARRHPDYSVLLLRLLAKTYETTLLEKC 438
```

QY 421 CAADPHCYAKYFDEKPLVEBPONLIKONCELFEQLGKYNALVRYTKVPOVST 480
 DB 439 CAADPHCYAKYFDEKPLVEBPONLIKONCELFEQLGKYNALVRYTKVPOVST 498
 QY 481 PTLVEVSRNKGKSGCKCKPEAKRMPCADYLSVNLQCVLHEKTPVSDRYTKCTTES 540
 DB 499 PTLVEVSRNKGKSGCKCKPEAKRMPCADYLSVNLQCVLHEKTPVSDRYTKCTTES 558
 QY 541 LVNRRPCFSALVEDETVVPKEFNAETFTFHADICTLSEKERQIKKQTAVALVELVHKPKAT 600
 DB 559 LVNRRPCFSALVEDETVVPKEFNAETFTFHADICTLSEKERQIKKQTAVALVELVHKPKAT 618
 QY 601 KEQKAVMDPFAAFVEKCCKADDKETCFABEGKKLVAAQAALGL 645
 DB 619 KEQKAVMDPFAAFVEKCCKADDKETCFABEGKKLVAAQAALGL 663

RESULT 5
 ADF16510
 ID ADF16510 standard; protein; 664 AA.
 XX ADF16510;
 AC ADF16510;
 XX
 DT 12-FEB-2004 (first entry)
 XX
 DE Human albumin therapeutic fusion protein Segid1607.
 XX
 XX albumin fusion protein; albumin activity; human serum albumin;
 KM serum osmotic pressure; shelf-life; stability; antidiabetic;
 KW gene therapy; diabetes mellitus; human.
 XX
 OS Chimeric.
 OS Homo sapiens.
 XX NO2003060071-A2.
 PN
 XX
 PD 24-JUL-2003.
 XX
 PF 23-DEC-2002; 2002WO-US040891.
 XX
 PR 21-DEC-2001; 2001US-0341811P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 28-JAN-2002; 2002US-0351360P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-036000P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-MAY-2002; 2002US-0382617P.
 PR 28-MAY-2002; 2002US-0383123P.
 PR 05-JUN-2002; 2002US-0394625P.
 PR 10-JUL-2002; 2002US-0398008P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 18-SEP-2002; 2002US-0411426P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 PA (DELTA) DELTA BIOTECHNOLOGY LTD.
 PA (PRIN-) PRINCIPIA PHARM CORP.
 XX
 PI Ballance DJ, Turner AJ, Rosen CA, Haseltine WA;
 XX
 XX WPI, 2003-596517/56.
 XX
 PT New albumin fusion protein, useful for preparing a composition for
 XX treating diabetes mellitus.

XX
 PS Example 4; SEQ ID NO 1607; 24pp; English.
 XX
 CC This invention relates to a novel albumin fusion protein having albumin
 CC or biological activity. Human serum albumin is responsible for a
 CC significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion of
 CC albumin to a therapeutic protein may increase shelf-life and stability of
 CC the therapeutic protein. The albumin fusion protein of the invention may
 CC allow production of compositions with antidiabetic activity whilst the
 CC nucleotide sequence which encodes it may be useful for gene therapy. The
 CC albumin fusion protein is useful for preparing a composition for treating
 CC diabetes mellitus. The present sequence is the amino acid sequence of a
 CC novel full-length human albumin therapeutic fusion protein of the
 CC invention. Note: The sequence data for this patent did not form part of
 CC the printed specification, but was obtained in electronic format directly
 CC from Wipo at ftp.wipo.int/pub/publishedpc_sequences
 XX
 SQ Sequence 664 AA;
 Query Match 100.0%; Score 3417; DB 7; Length 664;
 Best Local Similarity 100.0%; Pred. No. 3.2e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HGGGTFTSDVSSYLEGQAAKEFIAWLVKGRHGGTFTSDVSSYLEGQAAKEFIAWLVKGR 60
 DB 20 HGGGTFTSDVSSYLEGQAAKEFIAWLVKGRHGGTFTSDVSSYLEGQAAKEFIAWLVKGR 79
 QY 61 DAHKSVAHRFKDLGSENFKALVLIAPAQYLQCCPEDEHYKLVNTERPAKTCVADESN 120
 DB 80 DAHKSVAHRFKDLGSENFKALVLIAPAQYLQCCPEDEHYKLVNTERPAKTCVADESN 139
 QY 121 NCDKSLHTLFGDQLCTVAATLRETYGEMADCCAKOBERNECFLOHODDNPRLVRPEY 180
 DB 140 NCDKSLHTLFGDQLCTVAATLRETYGEMADCCAKOBERNECFLOHODDNPRLVRPEY 199
 QY 181 DVMCTAFHNDNEFTLKKLYEYIARRHPYFAPPELFFPAKRYKAFTCCOADAADKA 240
 DB 200 DVMCTAFHNDNEFTLKKLYEYIARRHPYFAPPELFFPAKRYKAFTCCOADAADKA 259
 QY 241 KDELDEGKASAKORLKASIQKTEGDAFKAMAVARISQRPKAEFAVSLVTDLT 300
 DB 260 KDELDEGKASAKORLKASIQKTEGDAFKAMAVARISQRPKAEFAVSLVTDLT 319
 QY 301 VHTECCHGDLLECAADRADLAKYICENODSISSEKLECKECPLEKSHCIAVENDEMP 360
 DB 320 VHTECCHGDLLECAADRADLAKYICENODSISSEKLECKECPLEKSHCIAVENDEMP 379
 QY 361 DLPSLAADFVESKOVCKNVAEADVFAGMFLYEYARRHPDYSVLLRLAKTYETTLK 420
 DB 380 DLPSLAADFVESKOVCKNVAEADVFAGMFLYEYARRHPDYSVLLRLAKTYETTLK 439
 QY 421 CAADPHCYAKYFDEKPLVEBPONLIKONCELFEQLGKYNALVRYTKVPOVST 480
 DB 440 CAADPHCYAKYFDEKPLVEBPONLIKONCELFEQLGKYNALVRYTKVPOVST 499
 QY 481 PTLVEVSRNKGKSGCKCKPEAKRMPCADYLSVNLQCVLHEKTPVSDRYTKCTTES 540
 DB 500 PTLVEVSRNKGKSGCKCKPEAKRMPCADYLSVNLQCVLHEKTPVSDRYTKCTTES 559
 QY 541 LVNRRPCFSALVEDETVVPKEFNAETFTFHADICTLSEKERQIKKQTAVALVELVHKPKAT 600
 DB 560 LVNRRPCFSALVEDETVVPKEFNAETFTFHADICTLSEKERQIKKQTAVALVELVHKPKAT 619
 QY 601 KEQKAVMDPFAAFVEKCCKADDKETCFABEGKKLVAAQAALGL 645
 DB 620 KEQKAVMDPFAAFVEKCCKADDKETCFABEGKKLVAAQAALGL 664

RESULT 6
 ADH21801
 ID ADH21801 standard; protein; 664 AA.
 XX

AC ADH21801;
 XX
 DT 11-MAR-2004 (first entry)
 XX
 DE Human albumin/GLP-1(7-36(A86))x2 fusion protein, SEQ ID NO:598.
 XX
 KW Fusion protein; human serum albumin; HSA; therapeutic protein;
 KW shelf-life; in vitro biological activity; in vivo biological activity;
 KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
 KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiant;
 KW anorectic; ophthalmological; gene therapy.
 XX
 OS Synthetic.
 OS Chimeric.
 OS Homo sapiens.
 XX
 PN WO2003059934-A2.
 XX
 PD 24-JUL-2003.
 XX
 PF 23-DEC-2002; 2002WO-US040892.
 XX
 PR 21-DEC-2001; 2001US-0341811P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360000P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 XX
 PI Rosen CA, Haseltine WA;
 XX
 DR WPI; 2003-598501/56.
 PT New albumin fusion protein, useful for preparing a composition for
 XX treating diabetes mellitus.
 PS
 PS Disclosure; SEQ ID NO 598; 1086bp; English.
 XX
 CC The invention relates to fusion proteins comprising human serum albumin
 CC (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
 CC antibody or peptide or their variants or fragments. The therapeutic
 CC protein may be fused to the N-terminus, the C-terminus or both termini of
 CC albumin via a linker. The albumin component of the fusion proteins
 CC prolongs the shelf-life and the in vitro and vivo biological activity of
 CC the proteins compared with those of the corresponding therapeutic
 CC proteins on their own. The invention also relates to nucleic acids
 CC encoding albumin fusion proteins, vectors and host cells comprising an
 CC albumin fusion protein nucleic acid, compositions and kits comprising an
 CC albumin fusion protein, the method of extending the shelf-life of a
 CC therapeutic protein by fusion with albumin, and the treatment of disease
 CC using an albumin fusion protein. The albumin fusion proteins may be used
 CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
 CC related conditions. Specifically the albumin fusion proteins may be used
 CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
 CC (especially neuropathy), retinopathy, cardiovascular disorders
 CC (especially heart disease, renal disorders and obesity. The proteins may
 CC also be used in a method of maintaining a basal glucose level in a
 CC patient and in a method for losing weight. The present sequence is
 CC related to the invention.

SQL Sequence 664 AA;
 Query Match 100.0%; Score 3417; DB 7; Length 664;
 Best Local Similarity 100.0%; Pred. No. 3,2e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HGGFTTSVSSSYLSEQAKEFIAMLVKGRHGGFTTSVSSSYLSEQAKEFIAMLVKGR 60
 DB 20 HGGFTTSVSSSYLSEQAKEFIAMLVKGRHGGFTTSVSSSYLSEQAKEFIAMLVKGR 79
 QY 61 DAHKSVAHFMDIGENFKALVLAFAQYLQCCPEHDVVKLVNEVTEPAKTCVADESAS 120
 DB 80 DAHKSVAHFMDIGENFKALVLAFAQYLQCCPEHDVVKLVNEVTEPAKTCVADESAS 139
 QY 121 NCDKSLHTLFQDKLCTVAATLRETYGEMADCCAKQEBERNECFLOHKDNPMLPRLVPRPV 180
 DB 140 NCDKSLHTLFQDKLCTVAATLRETYGEMADCCAKQEBERNECFLOHKDNPMLPRLVPRPV 199
 QY 181 DVNCTAFHNNETFLKKIYETARRRPYTAPELLFPARQYKAAFTCCQADKAACTLP 240
 DB 200 DVNCTAFHNNETFLKKIYETARRRPYTAPELLFPARQYKAAFTCCQADKAACTLP 259
 QY 241 KDELADBGKASAKORLKCASLOKGERAFKAMAVARLSORPPKAFPAEVSCLVTDLTK 300
 DB 260 KDELADBGKASAKORLKCASLOKGERAFKAMAVARLSORPPKAFPAEVSCLVTDLTK 319
 QY 301 VHTCCGDLLECADRADLAKYICENODSISKLKECCEKPLLEKSHCIAEVENDEMPA 360
 DB 320 VHTCCGDLLECADRADLAKYICENODSISKLKECCEKPLLEKSHCIAEVENDEMPA 379
 QY 361 DLPSLAADVFESKDVCKNTAEAKDVFGLMFLYFARHHDYISVLLRLAKTYETTLK 420
 DB 380 DLPSLAADVFESKDVCKNTAEAKDVFGLMFLYFARHHDYISVLLRLAKTYETTLK 439
 QY 421 CAADPHCEYAKVDESKLVSEPOVLIKONCELFEOLGEYKRONALLVRYTKVPQVST 480
 DB 440 CAADPHCEYAKVDESKLVSEPOVLIKONCELFEOLGEYKRONALLVRYTKVPQVST 499
 QY 481 PTLVEYSRLGKVGSKCCCKHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYKCTES 540
 DB 500 PTLVEYSRLGKVGSKCCCKHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYKCTES 559
 QY 541 LVNRPPGSALEVDERTYVPEKRFVAFETTFHADICTISEKROIKKOTALVELVKHPEKAT 600
 DB 560 LVNRPPGSALEVDERTYVPEKRFVAFETTFHADICTISEKROIKKOTALVELVKHPEKAT 619
 QY 601 KBQLKAVMDPEAFVEKCKCADDKETCPABEGKQLVAAASQAAIGL 645
 DB 620 KBQLKAVMDPEAFVEKCKCADDKETCPABEGKQLVAAASQAAIGL 664
 RESULT 7
 ADP16524
 ID ADP16524 standard; protein; 668 AA.
 XX
 XX ADP16524;
 AC
 XX
 DT 12-FEB-2004 (first entry)
 XX
 DE Human albumin therapeutic fusion protein SegID1621.
 XX
 KW albumin fusion protein; albumin activity; human serum albumin;
 KW serum osmotic pressure; shelf-life; stability; antidiabetic;
 KW gene therapy; diabetes mellitus; human.
 XX
 OS Chimeric.
 OS Homo sapiens.
 XX
 PN WO2003060071-A2.
 XX
 PD 24-JUL-2003.
 XX
 PF 23-DEC-2002; 2002WO-US040891.

XX 21-DEC-2001; 2001US-0341811P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 28-JAN-2002; 2002US-0351356P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360000P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-MAY-2002; 2002US-0382617P.
 PR 28-MAY-2002; 2002US-0383123P.
 PR 05-JUN-2002; 2002US-0385708P.
 PR 10-JUL-2002; 2002US-0394625P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 18-SEP-2002; 2002US-0411426P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.

PA (HUMA-) HUMAN GENOME SCI INC.
 PA (DELZ) DELTA BIOTECHNOLOGY LTD.
 PA (PRIN-) PRINCIPIA PHARM CORP.

PI Ballance DJ, Turner AJ, Rosen CA, Haebelcine WA;

XX WPI; 2003-598517/56.

PT New albumin fusion protein, useful for preparing a composition for
 PT treating diabetes mellitus.

PS Example 4; SEQ ID NO 1621; 24pp; English.

XX This invention relates to a novel albumin fusion protein having albumin
 CC or biological activity. Human serum albumin is responsible for a
 CC significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion of
 CC albumin to a therapeutic protein may increase shelf-life and stability of
 CC the therapeutic protein. The albumin fusion protein of the invention may
 CC allow production of compositions with antidiabetic activity whilst the
 CC nucleotide sequence which encodes it may be useful for gene therapy. The
 CC albumin fusion protein is useful for preparing a composition for treating
 CC diabetes mellitus. The present sequence is the amino acid sequence of a
 CC novel full-length human albumin therapeutic fusion protein of the
 CC invention. Note: The sequence data for this patent did not form part of
 CC the printed specification, but was obtained in electronic format directly
 CC from WIPO at ftp.wipo.int/pub/publisthepct_sequences

XX Sequence 668 AA;

Query Match 100.0%; Score 3417; DB 7; Length 668;

Best Local Similarity 100.0%; Pred. No. 3.3e-283; Mismatches 0; Gaps 0;

Matches 645; Conservative 0; Indels 0; Gaps 0;

QY 1 HGEGETFTSDVSSYLEGQAAKEFIAMLVKGRHGEGETFTSDVSSYLEGQAAKEFIAMLVKGR 60
 DB 24 HGEGETFTSDVSSYLEGQAAKEFIAMLVKGRHGEGETFTSDVSSYLEGQAAKEFIAMLVKGR 83
 QY 61 DAHSEVVAHRRFDLGEENFKALVLAFAQYLOQCPEFHVGLVNEVTFATTCVADSEAE 120
 DB 84 DAHSEVVAHRRFDLGEENFKALVLAFAQYLOQCPEFHVGLVNEVTFATTCVADSEAE 143
 QY 121 NCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKQPERNEGCTLOHKDNPMLPRLVREBV 180
 DB 144 NCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKQPERNEGCTLOHKDNPMLPRLVREBV 203
 QY 181 DVMCTAFHNDNEETFLKYLFIARRHPYFYABELLFFAKRYKAATFTECCQAADKAACLLP 240
 DB 204 DVMCTAFHNDNEETFLKYLFIARRHPYFYABELLFFAKRYKAATFTECCQAADKAACLLP 263

QY 241 KLDELNDEGKASSAKORLKCASTLOKFGERAFAKMAVAKLSQRPKAPFAVSKLNTDLTK 300
 DB 264 KLDELNDEGKASSAKORLKCASTLOKFGERAFAKMAVAKLSQRPKAPFAVSKLNTDLTK 323
 QY 301 VHTCCGHDLECGADRADIAKYICENODISSKLBCCCKPLLEKSHCIAVEYNDMPA 360
 DB 324 VHTCCGHDLECGADRADIAKYICENODISSKLBCCCKPLLEKSHCIAVEYNDMPA 383
 QY 361 DLPSLAADPFVESKDVCKNVAEADVFLGMLVEYARRHPDYSVLLRLAKTYETTLK 420
 DB 384 DLPSLAADPFVESKDVCKNVAEADVFLGMLVEYARRHPDYSVLLRLAKTYETTLK 443
 QY 421 CAADPHCYAKPDEKPLVEBPONLIKONCELPBOLGKYKQNALVYTKVQVST 480
 DB 444 CAADPHCYAKPDEKPLVEBPONLIKONCELPBOLGKYKQNALVYTKVQVST 503
 QY 481 PTLVEYSRNLGKYSKCKCKPEAKRMPCADYLSVNLQCVLHEKTPVSDRYTKCTES 540
 DB 504 PTLVEYSRNLGKYSKCKCKPEAKRMPCADYLSVNLQCVLHEKTPVSDRYTKCTES 563
 QY 541 LVNRRPCFSALVEDETVPKPEFNAETFTPHADICTLSEKERQIKQOTALVELYHKPKAT 600
 DB 564 LVNRRPCFSALVEDETVPKPEFNAETFTPHADICTLSEKERQIKQOTALVELYHKPKAT 623
 QY 601 KEQLKAVMDPPAFAVEKCKKADKETCFABEGKKLVAAQALGL 645
 DB 624 KEQLKAVMDPPAFAVEKCKKADKETCFABEGKKLVAAQALGL 668

RESULT 8

ID ADH21812 standard; protein; 668 AA.

XX ADH21812;

XX 11-MAR-2004 (first entry)

DE Human albumin/GHP-1(7-36(A8G))x2 fusion protein, SEQ ID NO:609.

XX Fusion protein, human serum albumin; HSA; therapeutic protein;
 KW shelf-life; in vitro biological activity; in vivo biological activity;
 KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KW rehypertrophy; cardiovascular disorder; heart disease; renal disorder;
 KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiac;
 KW anorectic; ophthalmological; gene therapy.

XX Synthetic.

OS Chimeric.

OS Homo sapiens.

XX WO2003059934-A2.

PD 24-JUL-2003.

XX 23-DEC-2002; 2002WO-US040892.

XX 21-DEC-2001; 2001US-0341811P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360000P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-JUL-2002; 2002US-0382617P.
 PR 28-MAY-2002; 2002US-0383123P.
 PR 09-AUG-2002; 2002US-0385708P.
 PR 13-AUG-2002; 2002US-0402131P.
 PR 18-SEP-2002; 2002US-0402708P.
 PR 02-OCT-2002; 2002US-0411355P.
 PR 11-OCT-2002; 2002US-0414984P.
 PR 23-OCT-2002; 2002US-0417611P.
 PR 05-NOV-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.

PA (HUMA-) HUMAN GENOME SCI INC.
 XX Rosen CA, Haseltine WA,
 XX WPI; 2003-598501/56.
 DR
 XX
 XX
 PT New albumin fusion protein, useful for preparing a composition for
 PT treating diabetes mellitus.
 XX
 XX
 PS Disclosure; SEQ ID NO 609; 1086pp; English.
 XX
 CC The invention relates to fusion proteins comprising human serum albumin
 CC (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
 CC antibody or peptide or their variants or fragments. The therapeutic
 CC protein may be fused to the N-terminus, the C-terminus or both termini of
 CC albumin via a linker. The albumin component of the fusion proteins
 CC prolongs the shelf-life and the in vitro and vivo biological activity of
 CC the proteins compared with those of the corresponding therapeutic
 CC proteins on their own. The invention also relates to nucleic acids
 CC encoding albumin fusion proteins, vectors and host cells comprising an
 CC albumin fusion protein nucleic acid, compositions and kits comprising an
 CC albumin fusion protein, the method of extending the shelf-life of a
 CC therapeutic protein by fusion with albumin, and the treatment of disease
 CC using an albumin fusion protein. The albumin fusion proteins may be used
 CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
 CC related conditions. Specifically the albumin fusion proteins may be used
 CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
 CC (especially neuropathy), retinopathy, cardiovascular disorders
 CC (especially heart disease, renal disorders and obesity. The proteins may
 CC also be used in a method of maintaining a basal glucose level in a
 CC patient and in a method for losing weight. The present sequence is
 CC related to the invention.
 XX
 XX
 SQ Sequence 668 AA;
 Query Match 100.0%; Score 3417; DB 7; Length 668;
 Best Local Similarity 100.0%; Pred. No. 3.3e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HGEGTFTSDVSSYLEGQAAKEFTAMLVKGRHGEFTSDVSSYLEGQAAKEFTAMLVKGR 60
 DB 24 HGEFTSDVSSYLEGQAAKEFTAMLVKGRHGEFTSDVSSYLEGQAAKEFTAMLVKGR 83
 QY 61 DAKSEVFAHRFKDLGSENFALVLIARQYLQCPPEFDHKLINVEVEPAKTCVADSAAE 120
 DB 84 DAKSEVFAHRFKDLGSENFALVLIARQYLQCPPEFDHKLINVEVEPAKTCVADSAAE 143
 QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKQEPERNCEFLQKDNPNLPVLVREPV 180
 DB 144 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKQEPERNCEFLQKDNPNLPVLVREPV 203
 QY 181 DVNCTAFHNDNEFTLKKYLYEIAARRHPYFPAPELILFFAKYKAAFTCCCOAADKACLLP 240
 DB 204 DVNCTAFHNDNEFTLKKYLYEIAARRHPYFPAPELILFFAKYKAAFTCCCOAADKACLLP 263
 QY 241 KLDELREBGRASSAKQKCKASLQKFSRPAFAVAARLSORFKAFAEYSKLVTDLTG 300
 DB 264 KLDELREBGRASSAKQKCKASLQKFSRPAFAVAARLSORFKAFAEYSKLVTDLTG 323
 QY 301 VHTTECCGDDLLECCADPRADLAKYICENQDSISSKLKCECKEPLLEKSHCIAEVENDEMPA 360
 DB 324 VHTTECCGDDLLECCADPRADLAKYICENQDSISSKLKCECKEPLLEKSHCIAEVENDEMPA 383
 QY 361 DLPSLAADFWESKDVCKXVAAKQVFLGMFLYERARRHPDYSVVLILRLAKTYETTLK 420
 DB 384 DLPSLAADFWESKDVCKXVAAKQVFLGMFLYERARRHPDYSVVLILRLAKTYETTLK 443
 QY 421 CAADPHECYAKVDEKPLVEEPONLIKONCEIFEOLGEXKPNALLVTRTKVPOVST 480
 DB 444 CAADPHECYAKVDEKPLVEEPONLIKONCEIFEOLGEXKPNALLVTRTKVPOVST 503
 QY 481 PTLVEVRNLGKVSCKCKHPEAKRMPCAEDYLSVNLQLCVLEKTPVSDRVTCKCTES 540

DB 504 PTLVEVRNLGKVSCKCKHPEAKRMPCAEDYLSVNLQLCVLEKTPVSDRVTCKCTES 563
 QY 541 LVNRRPFCFALBVDDEYVPKFNAAETFTPHADICTLSEKERQIKQTALVELVKRKPAT 600
 DB 564 LVNRRPFCFALBVDDEYVPKFNAAETFTPHADICTLSEKERQIKQTALVELVKRKPAT 623
 QY 601 KEQLRAVMDFAAFVEKCKKADDKETCFABEGSKLVASQAAVLGL 645
 DB 624 KEQLRAVMDFAAFVEKCKKADDKETCFABEGSKLVASQAAVLGL 668
 RESULT 9
 ADP16144
 ID ADP16144 standard; protein; 669 AA.
 XX
 AC ADP16144;
 DT 12-FEB-2004 (first entry)
 XX
 DE Human albumin therapeutic fusion protein SeqID1231.
 XX
 KW albumin fusion protein; albumin activity; human serum albumin;
 KW serum osmotic pressure; shelf-life; stability; antidiabetic;
 KW gene therapy; diabetes mellitus; human.
 XX
 OS Chimeric.
 OS Homo sapiens.
 XX
 PN WO2003060071-A2.
 PD 24-JUL-2003.
 XX
 PF 23-DEC-2002; 2002WO-US040891.
 XX
 PR 21-DEC-2001; 2001US-034181P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 28-JAN-2002; 2002US-0351360P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360000P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-037850P.
 PR 24-MAY-2002; 2002US-0382617P.
 PR 28-MAY-2002; 2002US-0383123P.
 PR 05-JUN-2002; 2002US-0385708P.
 PR 10-JUL-2002; 2002US-0394625P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 18-SEP-2002; 2002US-0411426P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 PA (DELT) DELTA BIOTECHNOLOGY LTD.
 PA (PRIN-) PRINCIPAL PHARM CORP.
 XX
 PI Balance DJ, Turner AJ, Rosen CA, Haseltine WA;
 XX WPI; 2003-598517/56.
 DR
 XX
 PT New albumin fusion protein, useful for preparing a composition for
 PT treating diabetes mellitus.
 XX
 PS Example 4; SEQ ID NO 1231; 24pp; English.
 XX
 CC This invention relates to a novel albumin fusion protein having albumin
 CC or biological activity. Human serum albumin is responsible for a
 CC significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion of

CC albumin to a therapeutic protein may increase shelf-life and stability of
 CC the therapeutic protein. The albumin fusion protein of the invention may
 CC allow production of compositions with antidiabetic activity whilst the
 CC nucleotide sequence which encodes it may be useful for gene therapy. The
 CC albumin fusion protein is useful for preparing a composition for treating
 CC diabetes mellitus. The present sequence is the amino acid sequence of a
 CC novel full-length human albumin therapeutic fusion protein of the
 CC invention. Note: The sequence data for this patent did not form part of
 CC the printed specification, but was obtained in electronic format directly
 CC from WIPO at http://wipo.int/pub/publishedepct_sequences

XX Sequence 669 AA;

Query Match 100.0%; Score 3417; DB 7; Length 669;
 Best Local Similarity 100.0%; Pred. No. 3,3e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HGEFTSDVSYLLEGOAKEFIAMLVKGRHGEGFTSDVSYLLEGOAKEFIAMLVKGR 60
 DB 25 HGEFTSDVSYLLEGOAKEFIAMLVKGRHGEGFTSDVSYLLEGOAKEFIAMLVKGR 84
 QY 61 DAKSEVARNFKDLGSENFALVLIAPAQYLQCCPEDHYKLVNEVTEPAKTCVADSAAE 120
 DB 85 DAKSEVARNFKDLGSENFALVLIAPAQYLQCCPEDHYKLVNEVTEPAKTCVADSAAE 144
 QY 121 NCKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPERNCEPLQHKDNPFLVLRPEV 180
 DB 145 NCKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPERNCEPLQHKDNPFLVLRPEV 204
 QY 181 DWACTAFHNEETFLKKYLYEIAARHPFYAPBLFFPAKRYKAAFTCCQADKAACTLP 240
 DB 205 DWACTAFHNEETFLKKYLYEIAARHPFYAPBLFFPAKRYKAAFTCCQADKAACTLP 264
 QY 241 KDLDELDEGKASSAKQRLKASLQKFGERRAFKMAVAVRLSORPPKAFPAVSKLVDTLTK 300
 DB 265 KDLDELDEGKASSAKQRLKASLQKFGERRAFKMAVAVRLSORPPKAFPAVSKLVDTLTK 324
 QY 301 VHTBCCHGDLLECGADPADLAKYTCENODSISSKLKECKSPLEKSHCTAEVENDMPA 360
 DB 325 VHTBCCHGDLLECGADPADLAKYTCENODSISSKLKECKSPLEKSHCTAEVENDMPA 384
 QY 361 DLPSLADPVESSKDVCKNAEAKOVFLGMFLYEYARRHPDYSVVLRLAKTYETTLKCK 420
 DB 385 DLPSLADPVESSKDVCKNAEAKOVFLGMFLYEYARRHPDYSVVLRLAKTYETTLKCK 444
 QY 421 CAADPHECYAKVFDEFKPLVEEPONTIKONCELFEOLGSEYKFNALLVYTKVPQVST 480
 DB 445 CAADPHECYAKVFDEFKPLVEEPONTIKONCELFEOLGSEYKFNALLVYTKVPQVST 504
 QY 481 PTIVEVRNIGKYGSKCKCKPEAKRMCADYLSVNLQICVHEKTPVSDRYTKCTES 540
 DB 505 PTIVEVRNIGKYGSKCKCKPEAKRMCADYLSVNLQICVHEKTPVSDRYTKCTES 564
 QY 541 LVNRRPFSALVEDEVTPKEFNAETTFPHADICTTSEKROIKKOTALVELVHKRKAT 600
 DB 565 LVNRRPFSALVEDEVTPKEFNAETTFPHADICTTSEKROIKKOTALVELVHKRKAT 624
 QY 601 KEOLKAVMDPFAAFVEKCCCAADKETCPAEBGKKLVAAQALGL 645
 DB 625 KEOLKAVMDPFAAFVEKCCCAADKETCPAEBGKKLVAAQALGL 669
 RESULT 10
 ADH21622
 ID ADH21622 standard; protein: 669 AA.
 XX
 XX ADH21622;
 AC
 XX
 XX 11-MAR-2004 (first entry)
 DT
 XX
 DE Human albumin/GUP-1(7-36(A8G)) fusion protein, SEQ ID NO:419.
 XX
 KM Fusion protein; human serum albumin; HSA; therapeutic protein;

KM shelf-life; in vitro biological activity; in vivo biological activity;
 KM metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KM diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KM retinopathy; cardiovascular disorder; heart disease; renal disorder;
 KM obesity; glucose level maintenance; weight loss; antidiabetic; cardiant;
 KM anorectic; ophthalmological; gene therapy.

OS Synthetic.
 OS Chimeric.
 OS Homo sapiens.

XX WO2003059934-A2.

XX 24-JUL-2003.

XX 23-DEC-2002; 2002WO-US040892.

XX 21-DEC-2001; 2001US-034181P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360000P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.

XX (HUMA-) HUMAN GENOME SCI INC.

XX Rosen CA, Haseltine WA;

XX WPI; 2003-598501/56.

PT New albumin fusion protein, useful for preparing a composition for
 PT treating diabetes mellitus.

XX Disclosure; SEQ ID NO 419; 1086pp; English.

XX The invention relates to fusion proteins comprising human serum albumin
 CC (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
 CC antibody or peptide or their variants or fragments. The therapeutic
 CC protein may be fused to the N-terminus, the C-terminus or both termini of a
 CC albumin via a linker. The albumin component of the fusion proteins
 CC prolongs the shelf-life and the in vitro and vivo biological activity of
 CC the proteins compared with those of the corresponding therapeutic
 CC proteins on their own. The invention also relates to nucleic acids
 CC encoding albumin fusion proteins, vectors and host cells comprising an
 CC albumin fusion protein nucleic acid, compositions and kits comprising an
 CC albumin fusion protein, the method of extending the shelf-life of a
 CC therapeutic protein by fusion with albumin, and the treatment of disease
 CC using an albumin fusion protein. The albumin fusion proteins may be used
 CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
 CC related conditions. Specifically the albumin fusion proteins may be used
 CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
 CC (especially neuropathy), retinopathy, cardiovascular disorders
 CC (especially heart disease, renal disorders and obesity). The proteins may
 CC also be used in a method of maintaining a basal glucose level in a
 CC patient and in a method for losing weight. The present sequence is
 CC related to the invention.

XX Sequence 669 AA;

Query Match 100.0%; Score 3417; DB 7; Length 669;
 Best Local Similarity 100.0%; Pred. No. 3,3e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HGEFTSDVSYLLEGOAKEFIAMLVKGRHGEGFTSDVSYLLEGOAKEFIAMLVKGR 60

```

Db      |||||||
25 HEGGFTSVSSSYLREGQAKETIAMLVKRGHGFTSVSSYLRGQAKETIAMLVKGR 84
Qy      61 DAHSEVARNRFDLGEENFKALVLIAPAOYLQCCPEFDHVKLVNEVTEPAKTCVADDSAE 120
Db      85 DAHSEVARNRFDLGEENFKALVLIAPAOYLQCCPEFDHVKLVNEVTEPAKTCVADDSAE 144
Qy      121 NCDKSLHTLFGDKLCTVAATLRRTYGGEMADCCAKQEPERNCELOHKDNDPNLPRLVREPV 180
Db      145 NCDKSLHTLFGDKLCTVAATLRRTYGGEMADCCAKQEPERNCELOHKDNDPNLPRLVREPV 204
Qy      181 DVMCTAFHNDNEETFLKKYLYEIAARRHPYFAPPELLFPARKYKAFTCCQAADKACCLLP 240
Db      205 DVMCTAFHNDNEETFLKKYLYEIAARRHPYFAPPELLFPARKYKAFTCCQAADKACCLLP 264
Qy      241 KLDELDEGKASSAKORLKASLOKFGERAFAKMAVARLSORFPAFAEVSRLVTDLTK 300
Db      265 KLDELDEGKASSAKORLKASLOKFGERAFAKMAVARLSORFPAFAEVSRLVTDLTK 324
Qy      301 VHTCCGHDLLBECADDRADLAKYICENODSISSKLKCECKPILEKSHCIAEVENDEMPA 360
Db      325 VHTCCGHDLLBECADDRADLAKYICENODSISSKLKCECKPILEKSHCIAEVENDEMPA 384
Qy      361 DLPSLAADFYVESKOVCKNVAEADVFLGMFLYFARRHPYSVVLLRLAKTETTLKCK 420
Db      385 DLPSLAADFYVESKOVCKNVAEADVFLGMFLYFARRHPYSVVLLRLAKTETTLKCK 444
Qy      421 CAADPHBCKAKYFDEPKPLVEEPONLIKONCELFEOLGKFKONMLLVYTKKVPQVST 480
Db      445 CAADPHBCKAKYFDEPKPLVEEPONLIKONCELFEOLGKFKONMLLVYTKKVPQVST 504
Qy      481 PTLVEVSRLNGKYGSKCCCKPEAKRMCAEDYLSVNLQCTVHEKTPVSDRYTKCTES 540
Db      505 PTLVEVSRLNGKYGSKCCCKPEAKRMCAEDYLSVNLQCTVHEKTPVSDRYTKCTES 564
Qy      541 LVNRPFPSALVEDETVPKFNATETTFHADICTSEKROIKKOTALVELVGHKPKAT 600
Db      565 LVNRPFPSALVEDETVPKFNATETTFHADICTSEKROIKKOTALVELVGHKPKAT 624
Qy      601 KEOLKAVMDPFAAFVEKCCKADKCTCFAEKSKLVAAASQALGL 645
Db      625 KEOLKAVMDPFAAFVEKCCKADKCTCFAEKSKLVAAASQALGL 669

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RESULT 11

ADP16193 standard; protein; 674 AA.

AC ADF16193;

DT 12-FEB-2004 (first entry)

DE Human albumin therapeutic fusion protein SegID1280.

KW albumin fusion protein; albumin activity; human serum albumin;

KW serum osmotic pressure; shelf-life; stability; antidiabetic;

KW gene therapy; diabetes mellitus; human.

OS Chimeric.

OS Homo sapiens.

PN WO2003060071-A2.

PD 24-JUL-2003.

PF 23-DEC-2002; 2002WO-US040891.

PR 21-DEC-2001; 2001US-034181P.

PR 24-JAN-2002; 2002US-0350358P.

PR 26-FEB-2002; 2002US-0359370P.

PR 28-FEB-2002; 2002US-0360000P.

PR 27-MAR-2002; 2002US-0367500P.

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PR      08-APR-2002; 2002US-0370227P.
PR      10-MAY-2002; 2002US-0378950P.
PR      24-MAY-2002; 2002US-0382617P.
PR      28-MAY-2002; 2002US-0383123P.
PR      05-JUN-2002; 2002US-0385708P.
PR      10-JUL-2002; 2002US-0394625P.
PR      24-JUL-2002; 2002US-0396008P.
PR      09-AUG-2002; 2002US-0402131P.
PR      13-AUG-2002; 2002US-0402708P.
PR      18-SEP-2002; 2002US-0411355P.
PR      18-SEP-2002; 2002US-0411426P.
PR      02-OCT-2002; 2002US-0414984P.
PR      11-OCT-2002; 2002US-0417611P.
PR      23-OCT-2002; 2002US-0420246P.
PR      05-NOV-2002; 2002US-0423623P.
XX      (HUMA-) HUMAN GENOME SCI INC.
PA      (DEL2 ) DELTA BIOTECHNOLOGY LTD.
PA      (PRIN-) PRINCIPIA PHARM CORP.
PI      Ballance DJ, Turner AJ, Rosen CA, Haseltine WA;
DR      WPI; 2003-598517/56.
XX      New albumin fusion protein, useful for preparing a composition for
PT      treating diabetes mellitus.
XX      Example 4; SEQ ID NO 1280; 24pp; English.
XX      This invention relates to a novel albumin fusion protein having albumin
CC      or biological activity. Human serum albumin is responsible for a
CC      significant proportion of the osmotic pressure of serum and also
CC      functions as a carrier of endogenous and exogenous ligands. The fusion of
CC      albumin to a therapeutic protein may increase shelf-life and stability of
CC      the therapeutic protein. The albumin fusion protein of the invention may
CC      allow production of compositions with antidiabetic activity whilst the
CC      nucleotide sequence which encodes it may be useful for gene therapy. The
CC      albumin fusion protein is useful for preparing a composition for treating
CC      diabetes mellitus. The present sequence is the amino acid sequence of a
CC      novel full-length human albumin therapeutic fusion protein of the
CC      invention. Note: The sequence data for this patent did not form part of
CC      the printed specification, but was obtained in electronic format directly
CC      from WIPO at ftp.wipo.int/pub/publishedpct_sequences
XX      Sequence 674 AA;
SQ
Query Match      100.0%; Score 3417; DB 7; Length 674;
Best Local Similarity 100.0%; Pred. No. 3.3e-283; Indels 0; Gaps 0;
Matches 645; Conservative 0; Mismatches 0;
Qy      1 HGGFTSVSSSYLREGQAKETIAMLVKRGHGFTSVSSYLRGQAKETIAMLVKGR 60
Db      30 HGGFTSVSSSYLREGQAKETIAMLVKRGHGFTSVSSYLRGQAKETIAMLVKGR 89
Qy      61 DAHSEVARNRFDLGEENFKALVLIAPAOYLQCCPEFDHVKLVNEVTEPAKTCVADDSAE 120
Db      90 DAHSEVARNRFDLGEENFKALVLIAPAOYLQCCPEFDHVKLVNEVTEPAKTCVADDSAE 149
Qy      121 NCDKSLHTLFGDKLCTVAATLRRTYGGEMADCCAKQEPERNCELOHKDNDPNLPRLVREPV 180
Db      150 NCDKSLHTLFGDKLCTVAATLRRTYGGEMADCCAKQEPERNCELOHKDNDPNLPRLVREPV 209
Qy      181 DVMCTAFHNDNEETFLKKYLYEIAARRHPYFAPPELLFPARKYKAFTCCQAADKACCLLP 240
Db      210 DVMCTAFHNDNEETFLKKYLYEIAARRHPYFAPPELLFPARKYKAFTCCQAADKACCLLP 269
Qy      241 KLDELDEGKASSAKORLKASLOKFGERAFAKMAVARLSORFPAFAEVSRLVTDLTK 300
Db      270 KLDELDEGKASSAKORLKASLOKFGERAFAKMAVARLSORFPAFAEVSRLVTDLTK 329
Qy      301 VHTCCGHDLLBECADDRADLAKYICENODSISSKLKCECKPILEKSHCIAEVENDEMPA 360
Db      330 VHTCCGHDLLBECADDRADLAKYICENODSISSKLKCECKPILEKSHCIAEVENDEMPA 389

```

QY DLPSTADPVESKDVCKNVAEAKDVFGLMFLYEYARHPDYSVLLRLAKTYETTLK 420
 DB DLPSTADPVESKDVCKNVAEAKDVFGLMFLYEYARHPDYSVLLRLAKTYETTLK 449
 QY 421 CAADPHECYAKVDFEKPVLVEBPQNLKONCELFQDLGEYKFNALLVRYTKVPQVST 480
 DB 450 CAADPHECYAKVDFEKPVLVEBPQNLKONCELFQDLGEYKFNALLVRYTKVPQVST 509
 QY 481 PTLVEYSRNIGKVGSKCKCKPEARMPCADYLSVVLNQLCVLHEKTPVSDRYTKCTES 540
 DB 510 PTLVEYSRNIGKVGSKCKCKPEARMPCADYLSVVLNQLCVLHEKTPVSDRYTKCTES 569
 QY 541 LVNRRPCFSALVEDETVYKPEFNAETFTFADICTLSEKERQIKKOTALVELVHKPKAT 600
 DB 570 LVNRRPCFSALVEDETVYKPEFNAETFTFADICTLSEKERQIKKOTALVELVHKPKAT 629
 QY 601 KEQLKAVMDPFAAFVEKCKCKADKETCFABEGKKLVAAQAALGL 645
 DB 630 KEQLKAVMDPFAAFVEKCKCKADKETCFABEGKKLVAAQAALGL 674

RESULT 12
 ADH21650
 ID ADH21650 standard; protein; 674 AA.
 AC ADH21650;
 AC
 DT 11-MAR-2004 (first entry)
 XX
 XX Human albumin/GLP-1(7-36(A8G))x2 fusion protein, SEQ ID NO:447.
 DE
 XX
 KM Fusion protein; human serum albumin; HSA; therapeutic protein;
 KM shelf-life; in vitro biological activity; in vivo biological activity;
 KM metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KM diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KM retinopathy; cardiovascular disorder; heart disease; renal disorder;
 KM obesity; glucose level maintenance; weight loss; antidiabetic; cardiant;
 KM anorectic; ophthalmological; gene therapy.
 XX
 OS Synthetic.
 OS Chimeric.
 OS Homo sapiens.
 XX
 PN MO2003059934-A2.
 PD 24-JUL-2003.
 XX
 PF 23-DEC-2002; 2002WC-US040892.
 XX
 PR 21-DEC-2001; 2001US-0341811P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360000P.
 PR 27-MAR-2002; 2002US-0367502P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 XX
 PI Rosen CA, Haseeltine WA;
 XX WPI; 2003-598501/56.
 DR
 XX New albumin fusion protein, useful for preparing a composition for

PT treating diabetes mellitus.
 XX
 XX Disclosure; SEQ ID NO 447; 1086pp; English.
 XX
 CC The invention relates to fusion proteins comprising human serum albumin
 CC (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
 CC antibody or peptide or their variants or fragments. The therapeutic
 CC protein may be fused to the N-terminus, the C-terminus or both termini of
 CC albumin via a linker. The albumin component of the fusion proteins
 CC prolongs the shelf-life and the in vitro and vivo biological activity of
 CC the proteins compared with those of the corresponding therapeutic
 CC proteins on their own. The invention also relates to nucleic acids
 CC encoding albumin fusion proteins, vectors and host cells comprising an
 CC albumin fusion protein nucleic acid, compositions and kits comprising an
 CC albumin fusion protein, the method of extending the shelf-life of a
 CC therapeutic protein by fusion with albumin, and the treatment of disease
 CC using an albumin fusion protein. The albumin fusion proteins may be used
 CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
 CC related conditions. Specifically the albumin fusion proteins may be used
 CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
 CC (especially neuropathy), retinopathy, cardiovascular disorders
 CC (especially heart disease, renal disorders and obesity. The proteins may
 CC also be used in a method of maintaining a basal glucose level in a
 CC patient and in a method for losing weight. The present sequence is
 CC related to the invention.
 XX
 XX Sequence 674 AA:
 QY
 Query Match 100.0%; Score 3417; DB 7; Length 674;
 Best Local Similarity 100.0%; Pred. No. 3.3e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HSGFTSVSVSSYLEGOAKKEFIAMLVKGRHSGFTSVSVSSYLEGOAKKEFIAMLVKGR 60
 DB 30 HSGFTSVSVSSYLEGOAKKEFIAMLVKGRHSGFTSVSVSSYLEGOAKKEFIAMLVKGR 89
 QY 61 DAHSEVAREFKDLGSENFALVLAFAQYLQCCPEPDHVKLVNEYTEPAKTCVADSEAE 120
 DB 90 DAHSEVAREFKDLGSENFALVLAFAQYLQCCPEPDHVKLVNEYTEPAKTCVADSEAE 149
 QY 121 NCDKSLHTLLFGDKLCTVAATLRETYGEMADCCAKQEPERNECFLQHKDNPMLPRLVPRVY 180
 DB 150 NCDKSLHTLLFGDKLCTVAATLRETYGEMADCCAKQEPERNECFLQHKDNPMLPRLVPRVY 209
 QY 181 DVNCTAFHNNEETFLKKYLVEIARRHPYFAPBELFFARRYRAAFTECCQADAKACLP 240
 DB 210 DVNCTAFHNNEETFLKKYLVEIARRHPYFAPBELFFARRYRAAFTECCQADAKACLP 269
 QY 241 KDELDEGKASAKQRLKCAISLQKGERAFKAMAVARLSQRPKAEFAVSKLVTDLTK 300
 DB 270 KDELDEGKASAKQRLKCAISLQKGERAFKAMAVARLSQRPKAEFAVSKLVTDLTK 329
 QY 301 VHTCCHGDLBECADRADLAKYICENQDISSKLKECCERKPLLEKSHCIAEYENDMPA 360
 DB 330 VHTCCHGDLBECADRADLAKYICENQDISSKLKECCERKPLLEKSHCIAEYENDMPA 389
 QY 361 DLPSTADPVESKDVCKNVAEAKDVFGLMFLYEYARHPDYSVLLRLAKTYETTLK 420
 DB 390 DLPSTADPVESKDVCKNVAEAKDVFGLMFLYEYARHPDYSVLLRLAKTYETTLK 449
 QY 421 CAADPHECYAKVDFEKPVLVEBPQNLKONCELFQDLGEYKFNALLVRYTKVPQVST 480
 DB 450 CAADPHECYAKVDFEKPVLVEBPQNLKONCELFQDLGEYKFNALLVRYTKVPQVST 509
 QY 481 PTLVEYSRNIGKVGSKCKCKPEARMPCADYLSVVLNQLCVLHEKTPVSDRYTKCTES 540
 DB 510 PTLVEYSRNIGKVGSKCKCKPEARMPCADYLSVVLNQLCVLHEKTPVSDRYTKCTES 569
 QY 541 LVNRRPCFSALVEDETVYKPEFNAETFTFADICTLSEKERQIKKOTALVELVHKPKAT 600
 DB 570 LVNRRPCFSALVEDETVYKPEFNAETFTFADICTLSEKERQIKKOTALVELVHKPKAT 629
 QY 601 KEQLKAVMDPFAAFVEKCKCKADKETCFABEGKKLVAAQAALGL 645

Db 630 KEOLKAVMDPFAFVEKCCKADDKETCFABEGKKLVAAASQALGL 674

RESULT 13
ADM45202
ID ADM45202 standard; protein; 674 AA.

XX ADM45202;

XX 07-APR-2005 (first entry)

XX K. Iacis killer toxin-GlPI-human serum albumin fusion protein - SEQ 206.

XX fusion protein; anti-HIV; gastrointestinal-gen.; antidiabetic; anorectic;
XX neoplastic; cardiatic; cytostatic; neuroprotective; immunosuppressive;
XX immune disorder; hematological disease; hyperproliferative disorder;
XX renal disease; cardiovascular disease; cardiovascular-gen.;
XX respiratory disorder; angiogenesis disorder; neurological disease;
XX wound healing; vulnery; endocrine disease; reproductive disorder;
XX gynecological; infectious disease; antimicrobial;
XX gastrointestinal disease; gene therapy; toxin; HSA; albumin;
XX glucagon-like peptide 1; GLP1.

XX Homo sapiens.
XX Kluveromyces Iacis.
XX Chimeric.

XX WO2005003236-A2.

XX 13-JAN-2005.

XX 20-JAN-2004; 2004WO-US001369.

XX 22-JAN-2003; 2003US-0441305P.

XX 11-MAR-2003; 2003US-0453201P.

XX 02-MAY-2003; 2003US-0467222P.

XX 23-MAY-2003; 2003US-0472816P.

XX 06-JUN-2003; 2003US-0476267P.

XX 24-SEP-2003; 2003US-0505172P.

XX 30-SEP-2003; 2003US-0506746P.

XX (HUMA-) HUMAN GENOME SCI INC.

XX Haseltine WA, Rosen CA;

XX WPI; 2005-091786/10.

XX New albumin fusion protein for diagnosing, creating or preventing

XX diseases such as HIV/AIDS, diabetes, obesity, heart disease or immune

XX disorders comprises a therapeutic protein (e.g. CD4M3, GLP-2 or PACAP-

XX 27) and an albumin.

XX Example 13; SEQ ID NO 206; 884pp; English.

XX The invention relates to a novel albumin fusion protein comprising a
XX therapeutic protein as listed in the specification in Table 1 and an
XX albumin comprising a sequence of SEQ ID NO: 1, or a fragment or variant
XX of SEQ ID NO: 1, where the fragment or variant has albumin activity and
XX where the albumin activity is the ability to prolong the shelf life of
XX the therapeutic protein compared to the shelf-life of the therapeutic
XX protein in an unfused state. Human serum albumin (HSA, HA) is responsible
XX for a significant proportion of the osmotic pressure of serum and also
XX functions as a carrier of endogenous and exogenous ligands. The fusion
XX protein of the invention demonstrates anti-HIV, gastrointestinal-gen.,
XX antidiabetic, anorectic, cardiatic and immunosuppressive activities. The
XX fusion protein may be useful for diagnosing, treating, preventing or
XX ameliorating diseases, such as immune disorders, cardiovascular disorders,
XX hyperproliferative disorders, renal disorders, neurological disorders,
XX respiratory disorders, angiogenesis-related disorders, reproductive
XX disorders, wound healing disorders, endocrine disorders, reproductive
XX disorders, infectious disorders and gastrointestinal disorders, possibly
XX with the use of gene therapy techniques. The current sequence is that of

CC the Kluveromyces Iacis killer toxin-GlPI-human serum albumin fusion
CC protein - SEQ 206 of the invention.

XX Sequence 674 AA;

Query Match 100.0%; Score 3417; DB 9; Length 674;
Best Local Similarity 100.0%; Pred. No. 3.3e-283;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HGEFTTSDVSSYIEGQAAKEFIAMVKGRRGEGFTTSDVSSYIEGQAAKEFIAMVKGRR 60
DB 30 HGEFTTSDVSSYIEGQAAKEFIAMVKGRRGEGFTTSDVSSYIEGQAAKEFIAMVKGRR 89
QY 61 DAHSEVARRPRDGEENFKALVLIAPAOYIQCFEDHVLVNEVTEFAKTCVADESA 120
DB 90 DAHSEVARRPRDGEENFKALVLIAPAOYIQCFEDHVLVNEVTEFAKTCVADESA 149
QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOPEPNECFLOKNDPNPLPRLVRE 180
DB 150 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOPEPNECFLOKNDPNPLPRLVRE 209
QY 161 DVMTAFHDNERTFLKTLIEIARRHPYFAPELLFPAKRYKAFTTECCQAADKAACTLP 240
DB 210 DVMTAFHDNERTFLKTLIEIARRHPYFAPELLFPAKRYKAFTTECCQAADKAACTLP 269
QY 241 KDELRLDGGKASAKORLKASLOKFGERAFAVMAVARLSORFPAEPAEVSCLVTDLTK 300
DB 270 KDELRLDGGKASAKORLKASLOKFGERAFAVMAVARLSORFPAEPAEVSCLVTDLTK 329
QY 301 VHTTECHGDLLECADRADLARIYICENODSISSKLKECCERPLKESHCIATVENDEN 360
DB 330 VHTTECHGDLLECADRADLARIYICENODSISSKLKECCERPLKESHCIATVENDEN 389
QY 361 DLPSLAADPVESKDYCKRYAAKNDVFLGMLLEVARRHPDYSVLLRLAKTYETLEKC 420
DB 390 DLPSLAADPVESKDYCKRYAAKNDVFLGMLLEVARRHPDYSVLLRLAKTYETLEKC 449
QY 421 CAADPHECYAVFDEFKPLVEBPONLIKONCELFEOLEGEYKRONALLVRYTKVQVST 480
DB 450 CAADPHECYAVFDEFKPLVEBPONLIKONCELFEOLEGEYKRONALLVRYTKVQVST 509
QY 481 PTLVEYSRNLGKVGSKCCGKPEAKRMPCAEDYLSVVLNOLCVLHEKTPSDRATKCTES 540
DB 510 PTLVEYSRNLGKVGSKCCGKPEAKRMPCAEDYLSVVLNOLCVLHEKTPSDRATKCTES 569
QY 541 LVNRRPCFSALBYDETYVPKEFNAETFTPHADICTISEKERQIKKOTALVELVKNRPKAT 600
DB 570 LVNRRPCFSALBYDETYVPKEFNAETFTPHADICTISEKERQIKKOTALVELVKNRPKAT 629
QY 601 KEOLKAVMDPFAFVEKCCKADDKETCFABEGKKLVAAASQALGL 645
DB 630 KEOLKAVMDPFAFVEKCCKADDKETCFABEGKKLVAAASQALGL 674

RESULT 14

ADP16525
ID ADP16525 standard; protein; 730 AA.

XX ADP16525;

XX 12-FEB-2004 (first entry)

XX Human albumin therapeutic fusion protein SeqID1622.

XX albumin fusion protein; albumin activity; human serum albumin;

XX serum osmotic pressure; shelf-life; stability; antidiabetic;

XX gene therapy; diabetes mellitus; human.

XX Chimeric.

XX Homo sapiens.
XX WO2003060071-A2.

PD 24-JUL-2003.
 XX
 PF 23-DEC-2002; 2002WO-US040891.
 XX
 PR 21-DEC-2001; 2001US-0341811P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 26-JAN-2002; 2002US-0351360P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-036000P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-MAY-2002; 2002US-0382617P.
 PR 28-MAY-2002; 2002US-0383123P.
 PR 05-JUN-2002; 2002US-0385708P.
 PR 10-JUL-2002; 2002US-0394625P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 18-SEP-2002; 2002US-0411426P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 PA (DEL2) DELTA BIOTECHNOLOGY LTD.
 PA (PRIN-) PRINCIPAL PHARM CORP.
 XX
 PI Ballance DJ, Turner AJ, Rosen CA, Haseltine WA;
 XX
 DR WPI; 2003-598517/56.
 XX
 PT New albumin fusion protein, useful for preparing a composition for
 XX treating diabetes mellitus.
 PT
 PS Example 4; SEQ ID NO 1622; 24pp; English.
 XX
 CC This invention relates to a novel albumin fusion protein having albumin
 CC or biological activity. Human serum albumin is responsible for a
 CC significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion of
 CC albumin to a therapeutic protein may increase shelf-life and stability of
 CC the therapeutic protein. The albumin fusion protein of the invention may
 CC allow production of compositions with antidiabetic activity whilst the
 CC nucleotide sequence which encodes it may be useful for gene therapy. The
 CC albumin fusion protein is useful for preparing a composition for treating
 CC diabetes mellitus. The present sequence is the amino acid sequence of a
 CC novel full-length human albumin therapeutic fusion protein of the
 CC invention. Note: The sequence data for this patent did not form part of
 CC the printed specification, but was obtained in electronic format directly
 CC from WIFO at ftp.wifo.int/pub/publishedpct_sequences
 CC
 XX
 SQ Sequence 730 AA;

Query Match 100.0%; Score 3417; DB 7; Length 730;
 Best Local Similarity 100.0%; Pred. No. 3.7e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HGEGETSDVSYLLEGOAKEFIAMLVKGRHGEFTSDVSYLLEGOAKEFIAMLVKGR 60
 DB 86 HGEFTSDVSYLLEGOAKEFIAMLVKGRHGEFTSDVSYLLEGOAKEFIAMLVKGR 145
 DB 61 DAHSEVAHRFKDLGEENFALVLAIAQYLQCCPFEDHVKLVNEVTEFAKTCVADESAR 120
 QY 146 DAHSEVAHRFKDLGEENFALVLAIAQYLQCCPFEDHVKLVNEVTEFAKTCVADESAR 205
 DB 121 NCKKSLHTLFGDGLCTVATLRETYGEMADCCAKQEPFRNCFLOHNDNNTLRVLRPEV 180
 DB 206 NCKKSLHTLFGDGLCTVATLRETYGEMADCCAKQEPFRNCFLOHNDNNTLRVLRPEV 265
 QY 181 DVNCTAFHNDRETFLLKYLVEIARRHPFYFAPELLFPAKRYKAAFTCCQAADKACLLP 240

DB 266 DVNCTAFHNDRETFLLKYLVEIARRHPFYFAPELLFPAKRYKAAFTCCQAADKACLLP 325
 QY 241 KLDELREGKASSAKQRLKCAISLOKGERAFKMAVARLSQRPKAEFAVSLVNDLTG 300
 DB 326 KLDELREGKASSAKQRLKCAISLOKGERAFKMAVARLSQRPKAEFAVSLVNDLTG 385
 QY 301 VHTECCHGDLLEGCADRADLAKTICENODSISSEKLBCECKPILKSKHCAIYENDMPA 360
 DB 386 VHTECCHGDLLEGCADRADLAKTICENODSISSEKLBCECKPILKSKHCAIYENDMPA 445
 QY 361 DLPSLAADFYESKDVCKNVAEADVFQMFVLYYARRHPDYSVLLIRLAKTYETLEKC 420
 DB 446 DLPSLAADFYESKDVCKNVAEADVFQMFVLYYARRHPDYSVLLIRLAKTYETLEKC 505
 QY 421 CAADPHECYAKVDEKPLVBERPOLIKQNCLEFQOLGEGYKQNMALVRYTKVQVST 480
 DB 506 CAADPHECYAKVDEKPLVBERPOLIKQNCLEFQOLGEGYKQNMALVRYTKVQVST 565
 QY 481 PTLVEVSRNLGKVGSKCKKPEAKRMPCAEDYLSVLNQLCVLHEKTPVSDRVTKCCTES 540
 DB 566 PTLVEVSRNLGKVGSKCKKPEAKRMPCAEDYLSVLNQLCVLHEKTPVSDRVTKCCTES 625
 QY 541 LVNRRPCFSALVDETVPKGFNAETFTFADICTLSEKERQIKQDTALVELVHKPKAT 600
 DB 626 LVNRRPCFSALVDETVPKGFNAETFTFADICTLSEKERQIKQDTALVELVHKPKAT 685
 QY 601 KEQLKAVMDPFAFVEKCCGADDKETCPAEBGKGLVAASQALGL 645
 DB 686 KEQLKAVMDPFAFVEKCCGADDKETCPAEBGKGLVAASQALGL 730

RESULT 15
 ADH21813
 ID ADH21813 standard; protein; 730 AA.
 XX
 AC ADH21813;
 XX
 DT 11-MAR-2004 (first entry)
 XX
 DE Human albumin/ALP-1(7-36(A8G)) fusion protein, SEQ ID NO:610.
 XX
 KW Fusion protein; human serum albumin; HSA; therapeutic protein;
 KW shelf-life; in vitro biological activity; in vivo biological activity;
 KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
 KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiac;
 KW anorectic; ophthalmological; gene therapy.
 XX
 OS Synthetic.
 OS Calimeric.
 OS Homo sapiens.
 OS
 PN MO2003059934-A2.
 XX
 PD 24-JUL-2003.
 XX
 PF 23-DEC-2002; 2002WO-US040892.
 XX
 PR 21-DEC-2001; 2001US-0341811P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 26-FEB-2002; 2002US-036000P.
 PR 27-MAR-2002; 2002US-0370227P.
 PR 08-APR-2002; 2002US-0378950P.
 PR 10-MAY-2002; 2002US-0382617P.
 PR 24-JUL-2002; 2002US-0394625P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.

DR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 PA (HUMA-) HUMAN GENOME SCI INC.
 XX
 XX
 PI Rosen CA, Haseltine WA;
 XX
 DR WPI; 2003-598501/56.
 XX
 PT New albumin fusion protein, useful for preparing a composition for
 XX treating diabetes mellitus.
 PS
 XX
 XX Disclosure; SEQ ID NO 610; 1086bp; English.
 CC The invention relates to fusion proteins comprising human serum albumin
 CC (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
 CC antibody or peptide or their variants or fragments. The therapeutic
 CC protein may be fused to the N-terminus, the C-terminus or both termini of
 CC albumin via a linker. The albumin component of the fusion proteins
 CC prolongs the shelf-life and the in vitro and vivo biological activity of
 CC the proteins compared with those of the corresponding therapeutic
 CC proteins on their own. The invention also relates to nucleic acids
 CC encoding albumin fusion proteins, vectors and host cells comprising an
 CC albumin fusion protein nucleic acid, compositions and kits comprising an
 CC albumin fusion protein, the method of extending the shelf-life of a
 CC therapeutic protein by fusion with albumin, and the treatment of disease
 CC using an albumin fusion protein. The albumin fusion proteins may be used
 CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
 CC related conditions. Specifically the albumin fusion proteins may be used
 CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
 CC (especially neuropathy), retinopathy, cardiovascular disorders
 CC (especially heart disease, renal disorders and obesity. The proteins may
 CC also be used in a method of maintaining a basal glucose level in a
 CC patient and in a method for losing weight. The present sequence is
 CC related to the invention.
 XX
 XX
 SO Sequence 730 AA;
 Query Match 100.0%; Score 3417; DB 7; Length 730;
 Best Local Similarity 100.0%; Pred. No. 3.7e-283;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HGEFTSDVSSYLEGOAAKEFIAMLVKGRHGEFTSDVSSYLEGOAAKEFIAMLVKGR 60
 DB 86 HGEFTSDVSSYLEGOAAKEFIAMLVKGRHGEFTSDVSSYLEGOAAKEFIAMLVKGR 145
 QY 61 DAHSEVAHREPKDLGEENFKALVLIAPQYIQQCFEDHVKLVNEYTFEACTVADESA 120
 DB 146 DAHSEVAHREPKDLGEENFKALVLIAPQYIQQCFEDHVKLVNEYTFEACTVADESA 205
 QY 121 NCDKSLHTLFGDKLCTVATLTAEYTGEMADCCAKOPEERNECFLOHKDNPMLPRLVRE 180
 DB 206 NCDKSLHTLFGDKLCTVATLTAEYTGEMADCCAKOPEERNECFLOHKDNPMLPRLVRE 265
 QY 181 DVMCTAFHDNETFLKTLVETIARRHPFYAPBELLFPAKRYKAFTCCQAADKAACLLP 240
 DB 266 DVMCTAFHDNETFLKTLVETIARRHPFYAPBELLFPAKRYKAFTCCQAADKAACLLP 325
 QY 241 KLDELRLDEGKASAKORLKCASLQKGERAFKAAVAARLSQRFPAKFAEVS KLVTDLTK 300
 DB 326 KLDELRLDEGKASAKORLKCASLQKGERAFKAAVAARLSQRFPAKFAEVS KLVTDLTK 385
 QY 301 VHTCCGHDLLFCADRDADIAKYICENDSISKLKECEKPLKESHCI AEVENDEMPA 360
 DB 386 VHTCCGHDLLFCADRDADIAKYICENDSISKLKECEKPLKESHCI AEVENDEMPA 445
 QY 361 DLPSLAADFEESKDYCKNYAEAKDVEFLGFLYETIARRHPDYSVLLRLAKTYETTLK 420
 DB 446 DLPSLAADFEESKDYCKNYAEAKDVEFLGFLYETIARRHPDYSVLLRLAKTYETTLK 505
 QY 421 CAADPHCECYAFVDFEKPVLVEEPONLIQNCGLPEQLGEYKFNALLVRYTKVPOVST 480
 DB 506 CAADPHCECYAFVDFEKPVLVEEPONLIQNCGLPEQLGEYKFNALLVRYTKVPOVST 565

QY 481 PTLVEASRLGKVGSKCKKHPKARMPQABEDYLSVNLQCLVHEKTPVSDRVTKCTES 540
 DB 566 PTLVEASRLGKVGSKCKKHPKARMPQABEDYLSVNLQCLVHEKTPVSDRVTKCTES 625
 QY 541 LVNRRPCPSALEVDYETVYPKEFNAETFTFHADICTLSKERQIKQTALVELVHKPKAT 600
 DB 626 LVNRRPCPSALEVDYETVYPKEFNAETFTFHADICTLSKERQIKQTALVELVHKPKAT 685
 QY 601 KEQLKAVNDPFAAFVEKCKRADDKETCPAEGSKLVAAQAALGL 645
 DB 686 KEQLKAVNDPFAAFVEKCKRADDKETCPAEGSKLVAAQAALGL 730

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 Job time : 155.004 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 19, 2006, 12:02:52 ; Search time 29.3182 Seconds
(without alignments)

2116.769 Million cell updates/sec

Title: US-10-775-180-447_COPY_30_674

Perfect score: 3417
Sequence: 1 HOBGFTSVSYSLGQAK.....TCFAEKGKLVASQALGL 645

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0
Maximum Match 100%

Listing first 45 summaries

Database :

1: PIR 80:*
2: pir1:*
3: pir2:*
4: pir3:*
5: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	3108	91.0	609	1	ABHOS	serum albumin prec
2	2947	86.2	600	2	A47391	serum albumin prec
3	2627	76.9	608	2	S57632	serum albumin prec
4	2481.5	72.6	607	1	ABHOS	serum albumin prec
5	2451.5	71.7	607	1	ABHOS	serum albumin prec
6	2437.5	71.3	607	1	ABHOS	serum albumin prec
7	2431	71.1	608	1	ABHOS	serum albumin prec
8	2416.5	70.7	605	1	ABHOS	serum albumin prec
9	2387.5	69.9	609	2	JC5838	serum albumin prec
10	1861	54.5	453	2	A05139	serum albumin - Mongolia
11	1562	45.7	615	1	ABHOS	serum albumin prec
12	1260.5	36.9	609	2	JC4258	alpha-fetoprotein
13	1256.5	36.8	609	1	PPHU	alpha-fetoprotein
14	1249.5	36.6	609	1	PPHU	alpha-fetoprotein
15	1207.5	35.3	607	1	ABHOS	74k albumin precursor
16	1181.5	34.6	265	2	I46986	albumin - dog (fra
17	1175.5	34.4	608	1	ABHOS	68k serum albumin
18	1084	31.7	605	1	PPHU	alpha-fetoprotein
19	1067	31.2	611	1	PPHU	alpha-fetoprotein
20	1055	30.9	599	1	A54906	ataman precursor -
21	932.5	27.3	608	2	A53195	ataman precursor -
22	930	27.2	614	2	S59517	serum albumin prec
23	751.5	22.0	608	1	ABHOS	serum albumin 1 pr
24	746.5	21.8	608	1	ABHOS	serum albumin 2 pr
25	699	20.5	382	2	A37253	serum albumin - bu
26	440.5	12.9	1423	1	S27941	serum albumin - se
27	401	11.7	474	1	VYRUD	vitamin D-binding
28	400	11.7	476	1	VYRUD	vitamin D-binding
29	387	11.3	472	1	A35327	vitamin D-binding

30	227.5	6.7	180	1	GCTT	glucagon precursor
31	227.5	6.7	180	2	A57294	glucagon precursor
32	225.5	6.6	180	1	GCTT	glucagon precursor
33	225.5	6.6	180	1	GCTT	glucagon precursor
34	225.5	6.6	180	1	GCTT	glucagon precursor
35	224.5	6.6	180	1	GCTT	glucagon precursor
36	222.5	6.5	158	1	GCTT	glucagon precursor
37	214.5	6.3	180	1	GCTT	glucagon precursor
38	213	6.2	206	2	I51301	proglucagon - chic
39	209	6.1	101	1	GCTT	glucagon precursor
40	204.5	6.0	151	1	GCTT	glucagon precursor
41	190.5	5.6	122	1	GCTT	glucagon 2 precursor
42	188.5	5.5	63	1	GCTT	glucagon precursor
43	188.5	5.5	178	2	I51058	glucagon 1 precursor
44	188	5.5	72	1	GCTT	glucagon precursor
45	184	5.4	1819	2	A71928	cag island protein

ALIGNMENTS

RESULT 1

ABHOS
serum albumin precursor [validated] - human
N:Alternate names: preproalbumin
N:Contains: Kinectin
C:Species: Homo sapiens (man)
C:Date: 29-Jul-1981 #sequence revision 31-Jan-1997 #ext change 09-Jul-2004
C:Accession: A93743; A93746; I39427; I59286; I59313; G01747; S55314; A91420; S06422; S3
R:Lawl, R.M.; Adelman, J.; Book, S.C.; Franke, A.E.; Houck, C.W.; Najarian, R.C.; Seebur
Nucleic Acids Res. 9, 6103-6114, 1981
A:Title: The sequence of human serum albumin cDNA and its expression in Escherichia coli
A:Reference number: A93743; PMID:82081882; PMID:6171778
A:Accession: A93743
A:Molecule type: mRNA
A:Residues: 1-419, 'K', 421-609 <LAW>
A:Cross-references: UNIPROT:P02768; UNIPARC:UP1000002CE3A; EMBL:V00495; GB:U00078; GB:U
R:Dugalczyk, A.; Law, S.W.; Demaison, O.E.
Proc. Natl. Acad. Sci. U.S.A. 79, 71-75, 1982
A:Title: Nucleotide sequence and the encoded amino acids of human serum albumin mRNA.
A:Reference number: A93746; PMID:82105994; PMID:6275391
A:Accession: A93746
A:Molecule type: mRNA
A:Residues: 1-120, 'G', 122-609 <DUG>
A:Cross-references: UNIPARC:UP10000156B8; EMBL:V00494; NID:G28589; PIDN:CAA23753.1; P
J. Biol. Chem. 261, 3244-3251, 1986
A:Title: The human albumin gene. Characterization of the 5' and 3' flanking regions and
A:Reference number: I39427; PMID:86140099; PMID:2419329
A:Accession: I39427
A:Status: translation not shown
A:Molecule type: DNA
A:Residues: 1-26 <URA>
A:Cross-references: UNIPARC:UP100002BD5F; GB:M3075; NID:G178330; PIDN:AA51688.1; PID
R:Watkins, S.; Medison, J.; Galliano, M.; Minichio, L.; Putnam, F.W.
Proc. Natl. Acad. Sci. U.S.A. 91, 2275-2279, 1994
A:Title: A nucleotide insertion and frameshift cause analbuminemia in an Italian family
A:Reference number: I59286; PMID:94181575; PMID:8134387
A:Accession: I59286
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 282-290, 'KSRFDQ', <MAT>
A:Cross-references: UNIPARC:UP1000011F7AF; GB:S69192; NID:G546032; PIDN:AA30282.1; PID
A:Note: this frame-shift variant, designated albumin Rome, leads to analbuminemia
R:Medison, J.; Galliano, M.; Watkins, S.; Minichio, L.; Porta, F.; Rossi, A.; Putnam,
Proc. Natl. Acad. Sci. U.S.A. 91, 6476-6480, 1994
A:Title: Genetic variants of human serum albumin in Italy: point mutants and a carboxyl-
A:Reference number: I59313; PMID:94294404; PMID:8022807
A:Accession: I59313
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 589-590, 'ALPFRVYKLLQVKKP', <MAD>
A:Cross-references: UNIPARC:UP10000072EC4; GB:S70799; NID:G547231; PIDN:AA31177.1; PID

A>Note: this frame-shift variant is designated albumin Bazzano; four additional variants
 R.Menaya, J.; Parrilla, R.; Ayuso, M.S.
 submitted to the EMBL Data Library, March 1995
 A:Reference number: G08292
 A:Accession: G01747
 A>Status: translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-120,'G',122-455 <MEN>
 A:Cross-references: UNIPARC:UPI000016A1A8; EMBL:U22961; NID:G763428; PIDN:AAA64922.1; PI
 R.Ledgerwood, E.C.; George, P.M.; Peach, R.J.; Brennan, S.O.
 Biochem. J. 308, 321-325, 1995
 A>Title: Endoproteolytic processing of recombinant proalbumin variants by the yeast Kex2
 A:Reference number: S55314; MUID:95275251; PMID:7755581
 A:Accession: S55314
 A:Molecule type: protein
 A:Residues: 19-27 <LED>
 A:Cross-references: UNIPARC:UPI00001743FA
 R.Meloun, B.; Moravsek, L.; Kostka, V.
 FEBS Lett. 58, 134-137, 1975
 A>Title: Complete amino acid sequence of human serum albumin.
 A:Reference number: A91420; MUID:76187907; PMID:1225573
 A:Accession: A91420
 A:Molecule type: protein
 A:Residues: 25-117,'EQ',120-154,'Q',156-193,'E',195-387,'H',389-390,'Y',392-393,'A',395-
 A:Cross-references: UNIPARC:UPI00001743FB
 R.Roehr, U.; Spittler, G.; Tripler, D.
 Justus Liebig's Ann. Chem. 9, 881-884, 1988
 A>Title: Isolation and structure elucidation of middle-molecular weight peptides from ur
 A:Reference number: S06422
 A>Note: this paper is in German, with an English abstract
 A:Accession: S06422
 A:Molecule type: protein
 A:Residues: 25-48 <ROE>
 A:Cross-references: UNIPARC:UPI0000052CDA
 R.Pinh, J.W.; Crouch, R.K.; Knapp, D.R.; Schey, K.L.
 Arch. Biochem. Biophys. 305, 595-599, 1993
 A>Title: Mass spectrometric identification of modifications to human serum albumin treat
 A:Reference number: S36882; MUID:93384321; PMID:8373198
 A:Accession: S36882
 A:Molecule type: protein
 A:Residues: 45-67;141-160;311-337;469-490;570-581 <PIN>
 A:Cross-references: UNIPARC:UPI00000423AC; UNIPARC:UPI00001743FC; UNIPARC:UPI00001743FD;
 R.Kaehler, E.; Spittler, G.
 Biol. Chem. Hoppe-Seyler 372, 849-855, 1991
 A>Title: Bruchstecke aus Albumin und beta(2)-Mikroglobulin - Bestandteile der Mittelmol
 A:Reference number: S17599; MUID:92126241; PMID:1772598
 A:Accession: S17599
 A:Molecule type: protein
 A:Residues: 25-54;354-357;431-447 <KAU>
 A:Cross-references: UNIPARC:UPI0000174400; UNIPARC:UPI0000174401; UNIPARC:UPI0000174402
 A>Note: 49-Leu was also found
 R.Carraway, R.E.; Cochran, D.E.; Boucher, W.; Miltra, S.P.
 J. Immunol. 143, 1680-1684, 1989
 A>Title: Structures of histamine-releasing peptides formed by the action of acid proteas
 A:Reference number: A45800; MUID:89341406; PMID:2474609
 A:Accession: A45800
 A:Molecule type: protein
 A:Residues: 166-173 <CAR>
 A:Cross-references: UNIPARC:UPI000004A560
 R.Mogard, M.H.; Kobayashi, R.; Chen, C.R.; Lee, T.D.; Reeve Jr., J.R.; Shively, J.E.; Wa
 Biochem. Biophys. Res. Commun. 136, 983-988, 1986
 A>Title: The amino acid sequence of kinetensin, a novel peptide isolated from pepsin-tr
 A:Reference number: A03239; MUID:86242180; PMID:3087352
 A:Accession: A03239
 A:Molecule type: protein
 A:Residues: 166-173,'L' <MOG>
 A:Cross-references: UNIPARC:UPI00000351D2
 R.Galliano, M.; Minchiotti, L.; Porta, F.; Rossi, A.; Ferri, G.; Madson, J.; Watkins, G
 Proc. Natl. Acad. Sci. U.S.A. 87, 8721-8725, 1990
 A>Title: Mutations in genetic variants of human serum albumin found in Italy.
 A:Reference number: A38255; MUID:91062352; PMID:2247440
 A:Accession: C38255
 A:Molecule type: protein

A:Residues: 76-111 <GAL1>
 A:Cross-references: UNIPARC:UPI0000174403
 A:Accession: B38255
 A:Molecule type: protein
 A:Residues: 82-105,'K',107-110 <GAL2>
 A:Cross-references: UNIPARC:UPI0000174403
 A>Note: this variant is designated albumin Vibro Valentia
 A:Accession: A38255
 A:Molecule type: protein
 A:Residues: 76-93,'K',85-106 <GAL3>
 A:Cross-references: UNIPARC:UPI0000174405
 A>Note: this variant is designated albumin Torino
 R.Minchiotti, L.; Galliano, M.; Zapponi, M.C.; Tenni, R.
 Eur. J. Biochem. 214, 437-444, 1993
 A>Title: The structural characterization and bilirubin-binding properties of albumin Her
 A:Reference number: S33298; MUID:93292504; PMID:8513793
 A:Accession: S33298
 A:Molecule type: protein
 A:Residues: 255-263,'E',265-281 <MIN1>
 A:Cross-references: UNIPARC:UPI0000174406
 A>Note: this variant is designated albumin Herborn
 R.Minchiotti, L.; Galliano, M.; Stoppini, M.; Ferri, G.; Crespeau, H.; Rochu, D.; Porta,
 Biochim. Biophys. Acta 1119, 232-238, 1992
 A>Title: Two albumin variants with identical electrophoretic mobility are produced by differ
 A:Reference number: S21078; MUID:92190239; PMID:1347703
 A:Accession: S21078
 A:Molecule type: protein
 A:Residues: 354-356,'K',358-378 <MIN2>
 A:Cross-references: UNIPARC:UPI0000174407
 A>Note: this variant is designated albumin Sondrio; another variant Paris-2 is reported,
 R.Ihe, X.M.; Carter, D.C.
 Nature 358, 209-215, 1992
 A>Title: Atomic structure and chemistry of human serum albumin.
 A:Reference number: A46756; MUID:92334427; PMID:1630489
 A:Contents: annotation; X-ray crystallography, 2.8 angstroms
 R.Brown, J.R.; Shockley, P.; Behrens, P.O.
 In The Chemistry and Physiology of the Human Plasma Proteins, Bing, D.H., ed., pp.23-40,
 A:Reference number: A94442
 A:Contents: annotation; three-dimensional structure and disulfide bonds
 R.Saber, M.A.; Stockbauer, P.; Moravsek, L.; Meloun, B.
 Collect. Czech. Chem. Commun. 42, 564-579, 1977
 A>Title: Disulfide bonds in human serum albumin.
 A:Reference number: A30930
 A:Contents: annotation; disulfide bonds
 R.Jacobsen, C.
 Biochem. J. 171, 453-459, 1978
 A>Title: Lysine residue 240 of human serum albumin is involved in high-affinity binding
 A:Reference number: A90299; MUID:78186630; PMID:656055
 A:Contents: annotation; bilirubin-binding site
 R.Peters, T.; Reed, R.G.
 In Albumin: Structure, Biosynthesis, Function, Peters, T., and Sjoholm, I., eds., 11-20,
 A>Title: Serum albumin: conformation and active sites.
 A:Reference number: A94408
 A:Contents: annotation; binding sites
 R.Harper, M.B.; Dugaiczyk, A.
 Am. J. Hum. Genet. 35, 565-572, 1983
 A>Title: Linkage of the evolutionarily-related serum albumin and alpha-fetoprotein genes
 A:Reference number: A90028; MUID:83379982; PMID:6192711
 A:Contents: annotation; gene position
 R.Walker, J.E.
 FEBS Lett. 66, 173-175, 1976
 A>Title: Lysine residue 199 of human serum albumin is modified by acetylsalicylic acid.
 A:Reference number: A46755; MUID:76257808; PMID:955075
 A:Contents: annotation
 A>Note: the nonenzymatic transfer of an acetyl group from aspirin (acetylsalicylic acid
 R.Bohney, J.P.; Ponda, M.L.; Feldhoff, R.C.
 FEBS Lett. 288, 266-268, 1992
 A>Title: Identification of Lys(190) as the primary binding site for pyridoxal 5'-phospha
 A:Reference number: A56294; MUID:92183881; PMID:1544460
 A:Contents: annotation
 A>Note: the nonenzymatic binding of pyridoxal phosphate to lysine-214 is described; in p
 A:Accession: C38255
 C/Comment: Serum albumin, a predominant protein in the plasma of adults, is synthesized

lirubin, protoporphyrin, long-chain fatty acids, prostaglandins, steroid hormones (weak C:Comment: A large number of variants of human serum albumin have been described.

C:Genetics: GDB:ALB
A:Gene: GDB:ALB
A:Cross-references: GDB:118990; OMIM:103600
A:Map position: 4q11-4q13

Query Match 91.0%; Score 3108; DB 1; Length 609;
Best Local Similarity 100.0%; Pred. No. 1.8e-196; Indels 0; Gaps 0;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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60  RDAHKSEVAFHFDLGEENFKALVLIIFAQYIQQCFEDHVKLVNEVTEPAKTCVADESA 119
24  RDHKSSEVAFHFDLGEENFKALVLIIFAQYIQQCFEDHVKLVNEVTEPAKTCVADESA 83
120 ENCDKSLHTLFGDKLCTVATLTRETYGEMADCCAKOBERNECFLQHKDNPMLPLVPRPE 179
84  ENCDKSLHTLFGDKLCTVATLTRETYGEMADCCAKOBERNECFLQHKDNPMLPLVPRPE 143
180 VDMCTAFHNEETFLKQVLYETARRHPFYAPPELLFFPAKRYKAAPTECCOADAACA 239
144 VDMCTAFHNEETFLKQVLYETARRHPFYAPPELLFFPAKRYKAAPTECCOADAACA 203
240 PKLDELRLDSEKASSAKQRLKCAISQKFGDRAFAKMAVARLSQRPFAEFVSKLVTDLT 299
204 PKLDELRLDSEKASSAKQRLKCAISQKFGDRAFAKMAVARLSQRPFAEFVSKLVTDLT 263
300 KVHTECCGDDLLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 359
264 KVHTECCGDDLLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 323
360 ADLPSLAADVESKDVCKNYAEAKDVLGMFLYEYARRHPDYSVLLRLAKYETTLTK 419
324 ADLPSLAADVESKDVCKNYAEAKDVLGMFLYEYARRHPDYSVLLRLAKYETTLTK 383
420 CCAAADPHCEYAKVFDEFPKPLVEEPONLIKONCELEQGEYKFNALLVRYTKYQVQS 479
384 CCAAADPHCEYAKVFDEFPKPLVEEPONLIKONCELEQGEYKFNALLVRYTKYQVQS 443
480 TPTLVEVSRLGKVGSKCKGHPKAPKPCABDYLSVLIQLCVLHKTPTVSDRYTCCTE 539
444 TPTLVEVSRLGKVGSKCKGHPKAPKPCABDYLSVLIQLCVLHKTPTVSDRYTCCTE 503
540 SLVNRRCPSALDELDTYVPKFNATFTPHADICTISEKEROIKKOTALVELVKHPKA 599
504 SLVNRRCPSALDELDTYVPKFNATFTPHADICTISEKEROIKKOTALVELVKHPKA 563
600 TKKQLKAVMDPFAAFVEKCKKADKCTCPAEBGKGLVAASQALGL 645
564 TKKQLKAVMDPFAAFVEKCKKADKCTCPAEBGKGLVAASQALGL 609

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RESULT 2 A47391

serum albumin precursor - rhesus macaque
C:Species: Macaca mulatta (rhesus macaque)
C>Date: 21-Jan-1994 #sequence revision 18-Nov-1994 #text change 09-Jul-2004
C:Accession: A47391
R:Watkins, S.; Sakamoto, Y.; Madison, J.; Davis, E.; Smith, D.G.; Dwyer, J.; Putnam, F.
Proc. Natl. Acad. Sci. U.S.A. 90, 2409-2413, 1993
A:Title: cDNA and protein sequence of polymorphic macaque albumins that differ in biliary
A:Reference number: A47391; MUID:93211971; PMID:8460152
A:Contents: B/B homozygote
A:Accession: A47391
A:Status: preliminary
A:Molecule type: mRNA; protein
A:Residues: 1-600 <MUT>
A:Cross-references: UNIPROT:Q28522; UNIPARC:UPI00001257C4; GB:M90463; NID:9342294; P1DN;
A:Experimental source: liver
A:Note: sequence extracted from NCBI backbone (NCBIN:128280, NCBI:P.128281)
C:Superfamily: serum albumin; serum albumin repeat homology
F:21-194/Domain: serum albumin repeat homology <SA1>
F:213-386/Domain: serum albumin repeat homology <SA2>

F:405-584/Domain: serum albumin repeat homology <SA3>

Query Match 86.2%; Score 2947; DB 2; Length 609;
Best Local Similarity 93.5%; Pred. No. 6.5e-186;
Matches 546; Conservative 23; Mismatches 15; Indels 0; Gaps 0;

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60  RDAHKSEVAFHFDLGEENFKALVLIIFAQYIQQCFEDHVKLVNEVTEPAKTCVADESA 119
16  RDHKSSEVAFHFDLGEENFKALVLIIFAQYIQQCFEDHVKLVNEVTEPAKTCVADESA 75
120 ENCDKSLHTLFGDKLCTVATLTRETYGEMADCCAKOBERNECFLQHKDNPMLPLVPRPE 179
76  ENCDKSLHTLFGDKLCTVATLTRETYGEMADCCAKOBERNECFLQHKDNPMLPLVPRPE 135
180 VDMCTAFHNEETFLKQVLYETARRHPFYAPPELLFFPAKRYKAAPTECCOADAACA 239
136 VDMCTAFHNEETFLKQVLYETARRHPFYAPPELLFFPAKRYKAAPTECCOADAACA 195
240 PKLDELRLDSEKASSAKQRLKCAISQKFGDRAFAKMAVARLSQRPFAEFVSKLVTDLT 299
196 PKLDELRLDSEKASSAKQRLKCAISQKFGDRAFAKMAVARLSQRPFAEFVSKLVTDLT 255
300 KVHTECCGDDLLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 359
256 KVHTECCGDDLLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 315
360 ADLPSLAADVESKDVCKNYAEAKDVLGMFLYEYARRHPDYSVLLRLAKYETTLTK 419
316 ADLPSLAADVESKDVCKNYAEAKDVLGMFLYEYARRHPDYSVLLRLAKYETTLTK 375
420 CCAAADPHCEYAKVFDEFPKPLVEEPONLIKONCELEQGEYKFNALLVRYTKYQVQS 479
376 CCAAADPHCEYAKVFDEFPKPLVEEPONLIKONCELEQGEYKFNALLVRYTKYQVQS 435
480 TPTLVEVSRLGKVGSKCKGHPKAPKPCABDYLSVLIQLCVLHKTPTVSDRYTCCTE 539
436 TPTLVEVSRLGKVGSKCKGHPKAPKPCABDYLSVLIQLCVLHKTPTVSDRYTCCTE 495
540 SLVNRRCPSALDELDTYVPKFNATFTPHADICTISEKEROIKKOTALVELVKHPKA 599
496 SLVNRRCPSALDELDTYVPKFNATFTPHADICTISEKEROIKKOTALVELVKHPKA 555
600 TKKQLKAVMDPFAAFVEKCKKADKCTCPAEBGKGLVAASQALGL 643
556 TKKQLKAVMDPFAAFVEKCKKADKCTCPAEBGKGLVAASQALGL 599

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RESULT 3 S57632

serum albumin precursor - cat
C:Species: Felis silvestris catus (domestic cat)
C>Date: 19-Oct-1995 #sequence revision 03-Nov-1995 #text change 09-Jul-2004
C:Accession: J04660; S57632
R:Hilger, C.; Grigioni, F.; Hentges, F.
Gene 169, 295-296, 1996
A:Title: Sequence of the gene encoding cat (Felis domesticus) serum albumin.
A:Reference number: J04660; MUID:96194824; PMID:8647469
A:Accession: J04660
A:Molecule type: mRNA
A:Residues: 1-608 <H12>
A:Cross-references: UNIPROT:P49064; UNIPARC:UPI00001257C2; EMBL:X84842; NID:9886484; P1
A:Experimental source: liver
A:Comment: This protein is the major protein component in plasma. It functions as a mul
ein has 35 conserved cysteine residues.
C:Superfamily: serum albumin; serum albumin repeat homology
C:Keywords: liver; plasma
F:1-18/Domain: signal sequence #status predicted <SIG>
F:13-24/Domain: propeptide #status predicted <PRP>
F:25-608/Product: serum albumin #status predicted <MUT>
F:25-202/Domain: serum albumin repeat homology <SA1>
F:221-394/Domain: serum albumin repeat homology <SA2>
F:413-592/Domain: serum albumin repeat homology <SA3>

Query Match 76.9%; Score 2627; DB 2; Length 608;
 Best Local Similarity 80.1%; Pred. No. 6,7e-165;
 Matches 483; Conservative 53; Mismatches 57; Indels 10; Gaps 1;

QY 41 SSYLEGQAKEFIAMLVKGRDAKSEVAFKFDLGEENFKALVLAFAQYLQCCPEEDHV 100
 DB 15 SAYSRG-----VTRREAHQSSIAHFNDLGEHFRGLVAVFSOYLQCCPEEDHV 64

QY 101 KLVNVEYTERFAKTCVADESAENCDKSLHTLFGDKLCTVATLRTETGYEMADCCAKQSEBERNE 160
 DB 65 KLVNVEYTERFAKTCVADQSAANCEKSHLHLLGDKLCTVATSLRDKYGMADCCCKEGERNE 124

QY 161 CFLQHKDNDPNLPRIVRPEVDVMCTAFHNEETFLKKYLVEIARRHPYFAPBELLFFAKR 220
 DB 125 CFLQHKDNDPNFGQVLTPPADAMCTAFHNEBQFLGKLYLEIARRHPYFAPBELLFYAEE 184

QY 221 YRAAFTECCQAADKACLPKLDLDEBKASAKRKLKASLQKGEBAFAMAVARLS 280
 DB 185 YKGVFTECCQADKACLPKVDALREKYLASSAKRKLKASLQKGEBAFAMAVARLS 244

QY 281 QRPFAEPFAVSKLYTDLTKVHTECGHDLECADRADLAKYICENODSISKLKECCE 340
 DB 245 QRPFAEPFAVSKLYTDLTKVHTECGHDLECADRADLAKYICENODSISKLKECCE 304

QY 341 KPLLEKSHCIAEVDENDEMPADLPSLAADPVESKDVCKNYAEAKDVFLLGMFLVEYARRHD 400
 DB 305 KPLLEKSHCIAEVEDDELPAADLPPLAVDFVEDKGVCKNYAEAKDVFLLGMFLVEYARRHD 364

QY 401 YSVVLLLRILAKYETTELKCCAAADPHCEYAKYFDEPKFLVEBPONLIKONCELEFQDGE 460
 DB 365 YSVVLLLRILAKYETTELKCCAAADPHCEYAKYFDEPKFLVEBPONLIKONCELEFQDGE 424

QY 461 YKRONALLVRYTKVPOVSTPTLVEYSRNLAGVSKCKCHPEAKRMPCCADYLSVYLNOL 520
 DB 425 YKRONALLVRYTKVPOVSTPTLVEYSRNLAGVSKCKCHPEAKRMPCCADYLSVYLNOL 484

QY 521 CVLHEKTPVSDRVTKCTCTESLVNRRPCFSALBVDDETYVPEKEFNAETFTFHADICTLSSEK 580
 DB 485 CVLHEKTPVSDRVTKCTCTESLVNRRPCFSALBVDDETYVPEKEFNAETFTFHADICTLSSEK 544

QY 581 RQIKKQTAIVELVKHKPKATKEQLKAVMDFAAFVCKCKKADKKECFPAEBSGKLVAAASQ 640
 DB 545 RQIKKQTAIVELVKHKPKATKEQLKAVMDFAAFVCKCKKADKKECFPAEBSGKLVAAASQ 604

QY 641 AAL 643
 DB 605 AAL 607

RESULT 4
 ABROS
 serum albumin precursor - (horse)
 C:Species: Equus caballus (domestic horse)
 C:Date: 31-Dec-1993 #sequence_rev: 31-Dec-1993 #text_change 09-Jul-2004
 C:Accession: S34053
 R:Ho, J.X.; Holowachuk, E.W.; Norton, E.J.; Twigg, P.D.; Carter, D.C.
 Eur. J. Biochem. 215, 205-212, 1993
 A:Title: X-ray and primary structure of horse serum albumin (Equus caballus) at 0.27-nm
 A:Reference number: S34053; M0ID:9334545; PMID:8344282
 A:Accession: S34053
 A:Molecule type: mRNA
 A:Residues: 1-607 <HOA>
 A:Cross-references: UNIPROT:P35747; UNIPARC:UPI00001257C3; GB:X74045; NID:q399671; PIND:
 C:Comment: Serum albumin is synthesized in the liver as preproalbumin. It binds copper,
 steroid hormones (weak bonds with these hormones promote their transfer across the membra
 C:Superfamily: serum albumin; serum albumin repeat homology
 C:Keywords: carrier protein; duplication; metal binding; plasma
 F:1-16/Domain: signal sequence #status predicted <SIG>
 F:19-24/Domain: propeptide #status predicted <PRO>
 F:25-607/Product: serum albumin #status predicted <MAT>
 F:29-601/Domain: serum albumin repeat homology <SA1>
 F:220-393/Domain: serum albumin repeat homology <SA2>
 F:412-591/Domain: serum albumin repeat homology <SA3>

F:27/Binding site: copper (His) #status predicted
 F:77-86,99-115,114-125,147-192,191-200,223-269,268-276,288-302,301-312,339-384,383-392,4
 F:263/Binding site: bilirubin (lys) #status predicted

Query Match 72.6%; Score 2481.5; DB 1; Length 607;
 Best Local Similarity 74.6%; Pred. No. 2.4e-155;
 Matches 450; Conservative 70; Mismatches 72; Indels 11; Gaps 2;

QY 41 SSYLEGQAKEFIAMLVKGRDAKSEVAFKFDLGEENFKALVLAFAQYLQCCPEEDHV 100
 DB 15 SAYSRG-----VLRDTHKSEIARFNDLGEHFRGLVAVFSOYLQCCPEEDHV 64

QY 101 KLVNVEYTERFAKTCVADESAENCDKSLHTLFGDKLCTVATLRTETGYEMADCCAKQSEBERNE 160
 DB 65 KLVNVEYTERFAKTCVADQSAANCEKSHLHLLGDKLCTVATSLRDKYGMADCCCKEGERNE 124

QY 161 CFLQHKDNDPNLPRIVRPEVDVMCTAFHNEETFLKKYLVEIARRHPYFAPBELLFFAKR 220
 DB 125 CFLQHKDNDPNLPRIVRPEVDVMCTAFHNEETFLKKYLVEIARRHPYFAPBELLFFAKR 183

QY 221 YRAAFTECCQAADKACLPKLDLDEBKASAKRKLKASLQKGEBAFAMAVARLS 280
 DB 184 YKADFTCCQADKACLPKLDLDEBKASAKRKLKASLQKGEBAFAMAVARLS 243

QY 281 QRPFAEPFAVSKLYTDLTKVHTECGHDLECADRADLAKYICENODSISKLKECCE 340
 DB 244 QRPFAEPFAVSKLYTDLTKVHTECGHDLECADRADLAKYICENODSISKLKECCE 303

QY 341 KPLLEKSHCIAEVDENDEMPADLPSLAADPVESKDVCKNYAEAKDVFLLGMFLVEYARRHD 400
 DB 304 KPLLEKSHCIAEVEDDELPAADLPPLAVDFVEDKGVCKNYAEAKDVFLLGMFLVEYARRHD 363

QY 401 YSVVLLLRILAKYETTELKCCAAADPHCEYAKYFDEPKFLVEBPONLIKONCELEFQDGE 460
 DB 364 YSVVLLLRILAKYETTELKCCAAADPHCEYAKYFDEPKFLVEBPONLIKONCELEFQDGE 423

QY 461 YKRONALLVRYTKVPOVSTPTLVEYSRNLAGVSKCKCHPEAKRMPCCADYLSVYLNOL 520
 DB 424 YKRONALLVRYTKVPOVSTPTLVEYSRNLAGVSKCKCHPEAKRMPCCADYLSVYLNOL 483

QY 521 CVLHEKTPVSDRVTKCTCTESLVNRRPCFSALBVDDETYVPEKEFNAETFTFHADICTLSSEK 580
 DB 484 CVLHEKTPVSDRVTKCTCTESLVNRRPCFSALBVDDETYVPEKEFNAETFTFHADICTLSSEK 543

QY 581 RQIKKQTAIVELVKHKPKATKEQLKAVMDFAAFVCKCKKADKKECFPAEBSGKLVAAASQ 640
 DB 544 RQIKKQTAIVELVKHKPKATKEQLKAVMDFAAFVCKCKKADKKECFPAEBSGKLVAAASQ 603

QY 641 AAL 643
 DB 604 AAL 606

RESULT 5
 ABROS
 serum albumin precursor [validated] - bovine
 N:Alternate names: 67k protein; preproalbumin
 C:Species: Bos primigenius taurus (cattle)
 C:Date: 24-Apr-1984 #sequence_rev: 30-Sep-1993 #text_change 09-Jul-2004
 C:Accession: A38885; A36401; A91258; B60809; G10780; D45800; A26593; A90309; A91458; A94
 R:Holowachuk, E.W.; Stoltendorff, J.K.; Reed, R.G.; Peters Jr., T.
 submitted to the EMBL Data Library, August 1991
 A:Description: Bovine serum albumin: cDNA sequence and expression.
 A:Reference number: A38885
 A:Accession: A38885
 A:Molecule type: mRNA
 A:Residues: 1-607 <HOL>
 A:Cross-references: UNIPROT:P04277; UNIPARC:UPI0000174408; EMBL:M73215
 R:Hirayama, K.; Akashi, S.; Furuya, M.; Fukuhara, K.
 Biochem. Biophys. Res. Commun. 173, 639-646, 1990
 A:Title: Rapid confirmation and revision of the primary structure of bovine serum albumi
 A:Reference number: A36401; M0ID:91083649; PMID:2260975
 A:Accession: A36401

A: Molecule type: protein
A: Residues: 25-41, 'H', '43-189', 'E', '191-213', 'T', '215-323', 'D', '325-393', 'TS', '396-607' <HIR>
A: Cross-references: UNIPARC:UPI0000174409
R: MacGillivray, R.T.A.; Chung, D.W.; Davie, E.W.
Eur. J. Biochem. 98, 477-485, 1979
A: Title: Bioynthesis of bovine plasma proteins in a cell-free system.
A: Reference number: A91258; MUID: 80024278; PMID: 488109
A: Accession: A91258
A: Molecule type: protein
A: Residues: 1-32 <MAG>
A: Cross-references: UNIPARC:UPI000017440A
R: Hsieh, J.C.; Lin, F.P.; Tam, M.F.
Anal. Biochem. 170, 1-8, 1988
A: Title: Electrophoretic onto glass-fiber filter from an analytical isoelectrofocusing gel.
A: Reference number: A60808; MUID: 88267456; PMID: 3385500
A: Accession: B60808
A: Molecule type: protein
A: Residues: 25-41 <HSI>
R: Strawn, E.; Glincher, M.J.
Eur. J. Biochem. 191, 47-56, 1990
A: Title: Tooth 'enamelins' identified mainly as serum proteins. Major 'enamelin' is albumin.
A: Reference number: S10780; MUID: 90336641; PMID: 2379503
A: Accession: S10780
A: Molecule type: protein
A: Residues: 25-41, 'H', '43-57', '59-64' <STR>
A: Cross-references: UNIPARC:UPI000017440C
R: Carraway, R.E.; Cochran, D.E.; Boucher, W.; Mitra, S.P.
J. Immunol. 143, 1680-1684, 1989
A: Title: Structures of histamine-releasing peptides formed by the action of acid protease.
A: Reference number: A45800; MUID: 89341406; PMID: 2474609
A: Accession: D45800
A: Molecule type: protein
A: Residues: 163-172 <CAR>
A: Cross-references: UNIPARC:UPI000017440D
R: Carraway, R.E.; Mitra, S.P.; Cochran, D.E.
J. Biol. Chem. 262, 5968-5973, 1987
A: Title: Structure of a biologically active neurotensin-related peptide obtained from peptidomimetic synthesis.
A: Reference number: A26693; MUID: 87194805; PMID: 2437111
A: Accession: A26693
A: Molecule type: protein
A: Residues: 165-172, 'L', 'CA2>
A: Cross-references: UNIPARC:UPI00000351D2
R: Reed, R.G.; Putnam, F.W.; Peters Jr., T.
Biochem. J. 191, 867-868, 1980
A: Title: Sequence of residues 400-403 of bovine serum albumin.
A: Reference number: A90309; MUID: 82023364; PMID: 7283978
A: Accession: A90309
A: Molecule type: protein
A: Residues: 402-433 <REE>
A: Cross-references: UNIPARC:UPI000017440E
R: Brown, J.R.
Fed. Proc. 34, 591, 1975
A: Title: Structure of bovine serum albumin.
A: Reference number: A91458
A: Accession: A91458
A: Molecule type: protein
A: Residues: 25-41, 'H', '43-117', 'EO', '120-179', '181-189', 'E', '191-194', 'A', '196-213', 'T', '215-288', 'H'
A: Cross-references: UNIPARC:UPI000017440F; UNIPARC:UPI0000174410
R: Brown, J.R.
submitted to the Atlas, April 1975
A: Reference number: A94551
A: Accession: A94551
A: Molecule type: protein
A: Residues: 190-195 <BR2>
A: Cross-references: UNIPARC:UPI0000174411
R: Brown, J.R.
Fed. Proc. 33, 1389, 1974
A: Reference number: A91457
A: Contents: annotation; disulfide bonds
R: Werlen, R.C.; Offord, R.E.; Rose, K.
Biochem. J. 302, 907-911, 1994
A: Title: Preparation and characterization of novel substrates of insulin proteinase (EC

A:Reference number: S55232; MUID:95031935; PMID:7945219

A:Accession: S55232

A:Status: preliminary

A:Molecule type: Protein

A:Residues: 529-536; 569-572 <WRS>

A:Cross-references: UNIPARC:UPI0000174412; UNIPARC:UPI0000174413

C:Superfamily: serum albumin; serum albumin repeat homology

C:Keywords: carrier protein; copper binding; duplication; plasma

F:1-18/Domain: signal sequence #status experimental <PRO>

F:19-24/Domain: propeptide #status experimental <MPT>

F:25-607/Product: serum albumin repeat homology <SA1>

F:120-201/Domain: serum albumin repeat homology <SA2>

F:142-591/Domain: serum albumin repeat homology <SA3>

F:727/Binding site: copper (His) #status predicted

F:77-86; 99-115; 114-125; 147-192; 191-200; 223-269; 268-276; 288-302; 301-312; 339-384; 383-392; 4

Query Match 71.7%; Score 2451.5; DB 1; Length 607;

Best Local Similarity 75.7%; Pred. No. 2,28-153;

Matches 442; Conservative 71; Mismatches 70; Indels 1; Gaps 1;

60 RDAHSEVAHFKPDGSENFALVLIAPQYIQQCPEDHYLVNEVTEPKTCVADESA 119

24 RDTKSEIARHFKDGEQFGKLVLIASFQYIQQCPDEHYLVNELTEFAKTCVADBSH 83

120 ENCDKSLTLFGDKLCTVATIRFTYTGEMADCCAOEERNECFLOHDDNNTPLRPE 179

84 AGCEKSLTLTFGDELCKVASTIRETYGMDACCCEOEERNECFISHDDSDPLKLPD 142

180 VDVMCTAHDHDEFTPLKLYEIRBHPYFAPELLFPKRYKKAFTCECCOADAACLT 239

143 PVLTDKDEKADKEKFWGKTVLEIRBHPYFAPELLVYANKNGVFDCCOAEKGNCL 202

240 PKLDELADDEKGAASSAKORLKCASIQKFGERRAKMAVARISQRPKAPFAVSKLVTDLT 299

203 PKIEMREKVLASSARQRLRCASIQKFGERRAKMAVARISQRPKAPFAVSKLVTDLT 262

300 KYHTECCGDLLECCADPRADIAKTYICENODISIKLAKCEKPLLEKSHCAEVENDEMP 359

263 KYHKECCGDLLECCADPRADIAKTYICDNQDTSSKLKCECKPLLEKSHCAEVEKDAIP 322

360 ADPLSLADPVESSKOVCKNVAEAKOVFLGMYLEYEARHPDYSVLLIRLAKTETETLEK 419

323 ENLPPLTDPADPDADKVCNVOEAKDAFLGSLTYEYSRHPYANASVLLRLAKEYEATLEE 382

420 CCAADAPHECYAKVFDEKPLVBEHPNLIKONCELPEQLGKYKFNALLVRYTKKPVYS 479

383 CCAKDDPACSTVYDVKLHLVDEHPNLIKONCQDFEKLGEYGFONALIVYTRKPVYS 442

480 TPTLVEVRNIGKYSKCKKPKAKMPCADYLSVLTNOLCVLHEKTPVSDRYTKCTE 539

443 TPTLVEVRNIGKYSKCKKPKAKMPCADYLSVLTNOLCVLHEKTPVSEKATKCTE 502

540 SILVNRPCPSLLEVEVTPVPEFNAETFTPADICTISEKROIKKQATLVELVHKPKA 599

503 SILVNRPCPSALTPTPEITVYPRAFDEKLTFTPADICTLPTDTEKQIKQATLVELVHKPKA 562

600 TKEQLKAVMDPFAAFVEKCKKADKCTCPAEKGGKLVAAQAL 643

563 TKEQLKAVMDPFAAFVEKCKKADKCTCPAEKGGKLVAAQAL 606

RESULT 6

ABSHS

serum albumin precursor - sheep

C:Species: Ovis orientalis aries; Ovis ammon aries (domestic sheep)

C:Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004

C:Accession: S06936

C:Accession: S06936

C:Accession: S06936

Nucleic Acids Res. 17, 10495, 1989

Brown, W.M.; Dzigaletewa, K.M.; Foreman, R.C.; Saunders, N.R.

A:Title: Nucleotide and deduced amino acid sequence of sheep serum albumin.

A:Reference number: S06936; MUID:90098888; PMID:2602160

A:Accession: S06936

A:Molecule type: mRNA
 A:Residues: 1-607 <BRO>
 A:Cross-references: UNIPROT:P14639; UNIPARC:UPI00001257CB; EMBL:X17055; NID:G1386; PIDN:
 C:Comment: Serum albumin is synthesized in the liver as preproalbumin. It binds copper,
 steroid hormones (weak bonds with these hormones promote their transfer across the membra
 C:Superfamily: serum albumin; serum albumin repeat homology
 C:Keywords: carrier protein; duplication; metal binding; plasma
 F:1-18/Domain: signal sequence #status predicted <PRO>
 F:19-24/Domain: propeptide #status predicted <PRO>
 F:25-607/Product: serum albumin #status predicted <MAT>
 F:29-201/Domain: serum albumin repeat homology <SA1>
 F:220-393/Domain: serum albumin repeat homology <SA2>
 F:412-593/Domain: serum albumin repeat homology <SA3>
 F:27/Binding site: copper (His) #status predicted
 F:77-86,99-115,114-125,147-192,191-200,223-269,268-276,288-302,301-312,339-384,383-392,4
 F:263/Binding site: bilirubin (Lys) #status predicted

Query Match 71.3%; Score 2437.5; DB 1; Length 607;
 Best Local Similarity 75.0%; Pred. No. 1,8e-152;
 Matches 438; Conservative 73; Mismatches 72; Indels 1; Gaps 1;

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QY 60 RHAHSEVNHRRPKDGEENFKALVLIAPAOYLQOCPEFDHVLVNEVTEFAKTCVADBSA 119
DB 24 RUTHSEIARHRNDJSEENFGQVLIAFSQYLOQCFDEHVKLVKELTFATCVADBSH 83
QY 120 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOPEBNECFLOHKDNPMLPRLVPE 179
DB 84 ACDCSLHTLFGDELCKVATLRETYGDMADCCOPEBNECFILNHKDDSPDLPKL-KPE 142
QY 180 VDVNCTAFPDNEETFLKLYELIARHPFYAPPELLFPKRIKAAATECCOADRAACIL 239
DB 143 PRTLCEAFADSKKFKGKLYEARHPFYAPPELLFYANKNGVFOECCOADEKACIL 202
QY 240 PKLDELDRGKSSAKORLKASLOKFGRAFAVAVALSORPFAEPAVSKLYTDTL 299
DB 203 PKIDAREKVLASASQRLKASIQKFGRAKASVALLSQKFPADFTDTKTYTDLT 262
QY 300 KYHTECHGDLLECADDRADLAKYLICENODSISSKLKECCERPLAEKSHCIAEVDENP 359
DB 263 KYHKECHGDLLECADDRADLAKYLICDHQDALSSKLKECCERPLAEKSHCIAEVDNAVP 322
QY 360 ADPLSLADPVSCKYCKYAAEKDVFLLMFLYEAARRPDYSVLLMLATYETTLK 419
DB 323 ENLPPLTADFAEDKECKYKYOEKDVLGSPFYEYSRRRBEVAVSLTALAEYEATLTD 382
QY 420 CCAADPHHCYAKVPEFEPLVEBPONLTKONCELEOEGEYKFOALLVRYTKKPYGS 479
DB 383 CCAKEDPHACVATVPFKLHLYVDEPONLTKONCELEKGEYGFQNALVRYTKKAPYGS 442
QY 480 TPTLVEVSHNLGVKSGCKCKHPEAKRMPCAEDYLSVVLNQLCVLHKETPVSDDVTKCCTE 539
DB 443 TPTLVEVSHNLGVKSGCKCKHPEAKRMPCTEDYLSILNRLCVLHKETPVSDDVTKCCTE 502
QY 540 SLVNRPRCSALEVDETYYPKEFMAETFFPHADICTLSEKEROIKQTLVLELVKPKPA 599
DB 503 SLVNRPRCSLDLTLDETYYPKEFDEKFFPHADICTLPTKEKIKQTLVLELVKPKPA 562
QY 600 TBEOLKAVWDDPFAAFKCKCKADDDKTCFAEBSKTLVAASQAL 643
DB 563 TBEOLKAVWDDPFAAFKCKCKADDDKTCFAEBSKTLVAASQAL 606

```

RESULT 7

ABRTS

Serum albumin precursor - rat

N:Alternate names: preproalbumin

C:Species: Rattus norvegicus (Norway rat)

C:Date: 31-May-1979 #sequence revision 31-May-1979 #ext change 09-Jul-2004

C:Accession: A93872; A92211; A91946; A91940; C45800; I57621; A03233

R:Sargent, T.D.; Yang, M.; Bonner, J.

Proc. Natl. Acad. Sci. U.S.A. 78, 243-246, 1981

A:Title: Nucleotide sequence of cloned rat serum albumin messenger RNA.

A:Reference number: A93872; MUID:81223722; PMID:7017712

A:Accession: A93872
 A:Molecule type: mRNA
 A:Residues: 1-608 <SA>
 A:Cross-references: UNIPROT:P02770; UNIPARC:UPI00001257CA; GB:V01222; GB:J00698; NID:955
 R:Struss, A.W.; Bennett, C.D.; Donohue, A.M.; Rodkey, J.A.; Alberts, A.W.
 J. Biol. Chem. 252, 6846-6855, 1977
 A:Title: Rat liver pre-proalbumin: complete amino acid sequence of the pre-piece. Analys
 A:Reference number: A92211; MUID:77249657; PMID:893447
 A:Note: Cleavages during protein maturation
 A:Accession: A92211

A:Molecule type: protein
 A:Residues: 1-38 <STR>
 A:Cross-references: UNIPARC:UPI0000174416
 R:Isemura, S.; Ikenaka, T.
 J. Biochem. 83, 35-48, 1978
 A:Title: Amino acid sequences of fragments I and II obtained by cyanogen bromide cleavag
 A:Reference number: A91946; MUID:78109429; PMID:564345

A:Accession: A91946
 A:Molecule type: protein
 A:Residues: 25-222 <IS1>
 A:Cross-references: UNIPARC:UPI0000174417
 R:Isemura, S.; Ikenaka, T.
 J. Biochem. 79, 1183-1196, 1976
 A:Title: Fragmentation of rat serum albumin by cyanogen bromide cleavage and the amino a
 A:Reference number: A91940; MUID:76260153; PMID:956149

A:Accession: A91940
 A:Molecule type: protein
 A:Residues: 223-288;572-608 <IS2>
 A:Cross-references: UNIPARC:UPI0000174418; UNIPARC:UPI0000174419
 A:Note: 262-Leu was also found

R:Moyle, Y.; Ikenaka, T.; Ichida, F.
 Cancer Res. 38, 3483-3486, 1978

A:Title: Copper (II)-binding ability of human alpha-fetoprotein.
 A:Reference number: A90758; MUID:79001617; PMID:80265

A:Contents: annotation; copper binding
 R:Carraway, R.E.; Cochran, D.E.; Boucher, W.; Mitra, S.P.
 J. Immunol. 143, 1680-1684, 1989

A:Title: Structures of histamine-releasing peptides formed by the action of acid proteas
 A:Reference number: A45800; MUID:89341406; PMID:2474609

A:Accession: C45800
 A:Status: preliminary

A:Molecule type: protein
 A:Residues: 166-173 <CAR>

A:Cross-references: UNIPARC:UPI000017441A
 R:Heard, J.

Mol. Cell. Biol. 7, 2425-2434, 1987

A:Title: Determinants of rat albumin promoter tissue specificity analyzed by an improved
 A:Reference number: I57621; MUID:87286876; PMID:3475566

A:Accession: I57621
 A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA
 A:Residues: 1-5 <RES>

A:Cross-references: UNIPARC:UPI00001188B8; GB:M16825; NID:9202828; PIDN:AAA40712.1; PID:
 C:Superfamily: serum albumin; serum albumin repeat homology

C:Keywords: carrier protein; duplication; metal binding; plasma
 F:1-18/Domain: signal sequence #status experimental <SID>

F:19-24/Domain: propeptide #status experimental <PRO>
 F:25-608/Product: serum albumin #status experimental <MAT>

F:29-202/Domain: serum albumin repeat homology <SA1>
 F:221-394/Domain: serum albumin repeat homology <SA2>

F:413-592/Domain: serum albumin repeat homology <SA3>
 F:27/Binding site: copper (His) #status experimental

F:77-86,99-115,114-125,148-193,192-201,224-270,269-277,289-303,302-313,340-385,384-393,4

Query Match 71.1%; Score 2431; DB 1; Length 608;
 Best Local Similarity 73.5%; Pred. No. 4.9e-152;
 Matches 429; Conservative 82; Mismatches 73; Indels 0; Gaps 0;

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QY 60 RHAHSEVNHRRPKDGEENFKALVLIAPAOYLQOCPEFDHVLVNEVTEFAKTCVADBSA 119
DB 24 RHAHSEIARHRNDJGEQFKGLVLIAPSOYLQKCPYEHKLVQEVTDFAKTCVADBSA 83

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QY 120 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOPEBNECFLOHKDNPMLPRLVPE 179

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Db      84 AENCDSKSLHTLPFGDKCSLNPFGFKABMADCCAKGEPENECFLQHKDNPCLPFPKKA 143
QY      179 EVVVMCAFPNDNEETFLKKTLYELARHPYFVAPELLFFPAKRYKAAPTECCOQADRAACL 238
      144 EPDMCTAFQENAEBAFNGHYLHEVARRHPYFYCGPELLYLDKTTAYVTECCAADDKGACL 203
QY      239 LPKLDELDEGKASASAKORLKCAASLOKFGRAFKAAMVABLQSRPKPAEAVSKLVTDL 298
      204 TPLKLDLKEKALVSAVNGRLKCSMKKFGERAFAAMAVAMSQTFFPADFAITKLATDL 263
QY      299 TKYHTECGHDLLECADRRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEM 358
      264 TKYTOECCHDLLECADRRALKYMCENQASISISKQACDCKEMQKOSQCLAEVHDDM 333
QY      359 PALPPLAADFVESKDVCKKYAEAKDVFLLGMPLYEYARRHPDYSVLLRLAKYETTLLE 418
      324 PADLPALTAADFVEDKDVCKKYAEAKDVFLLGMPLYEYARRHPDYSVLLRLAKYETTLLE 393
QY      419 KCCAAADPHBCYAKVDEFPKPLVEEPONLTKONCELPFOLEGYKQNALVRYTKVPOV 478
      384 KCCAAADPHACGYHVPFEPKPLVEEPONLVKSNCELYEKLGEGFOVAVLYRTTKAPQV 443
QY      479 STPLTVESNLIKVGSKCKKHPBAKMPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCT 538
      444 STPLTVESAARSLRGVGTGHCALPEKKRLPCVEDYLSALINRVCLLHEKTPVSEQVTKCS 503
QY      539 ESTLVNRRPCFSALVEBETVYKPEFNATFTFHADICTLSEKEROIKKQTLVBLVNHKPK 598
      504 GSILVERPCFSALPVDETVYKPEKATFTFHANICTLPEKEKQMEQKQTLVBLVNHKPK 563
QY      599 ATREQLKAVMDPFAAFVEKCKKADDKETCPAEGSKLVASQAAL 643
      564 ATREQLKAVMDPFAAFVEKCKKADDKETCPAEGSKLVASQAAL 608
Db
RESULT 10
A05139
serum albumin - mouse (fragment)
C/Species: Mus musculus (house mouse)
C/Date: 05-Jun-1987 #sequence_revision 17-Mar-2000 #text_change 09-Jul-2004
C/Accession: A05139; I48638
R/Minghetti, P.P.; Law, S.W.; Dugalczyk, A.
Mol. Biol. Evol. 2, 347-358, 1985
A/Title: The rate of molecular evolution of alpha-fetoprotein approaches that of pseudog
A/Reference number: A93055; MUID:88216123; PMID:2452956
A/Accession: A05139
A/Molecule type: mRNA
A/Residues: 1-418 <MIN>
A/Cross-references: UNIPROT:P07724; UNIPARC:UPI000016CBE6; GB:M16111; NID:gl91764; PIDN:
R/Boccardo, C.; Deschatrete, J.; Meunier-Rotival, M.
Gene 88, 181-186, 1990
A/Title: Empty and occupied insertion site of the truncated LINE-1 repeat located in the
A/Reference number: I48638; MUID:90269606; PMID:1971802
A/Accession: I48638
A/Status: preliminary; translated from GB/EMBL/DBJ
A/Molecule type: DNA
A/Residues: 379-453 <BOC>
A/Cross-references: UNIPARC:UPI000016CEAF; EMBL:X13060; NID:952939; PIDN:CAA1458.1; PIT
C/Superfamily: serum albumin; serum albumin repeat homology
C/Keywords: carrier protein; duplication; metal binding; plasma
F/1-104/Domain: serum albumin repeat homology (fragment) <SA1>
F/123-296/Domain: serum albumin repeat homology <SA2>
F/315-453/Domain: serum albumin repeat homology (fragment) <SA3>
Query Match      54.5%; Score 1861; DB 2; Length 453;
Best Local Similarity 72.2%; Pred. No. 9.le-115;
Matches 327; Conservative 64; Mismatches 62; Indels 0; Gaps 0;
QY      135 CTYATLAREYGEADCCAKGEPENECFLQHKDNPCLPPLVPEVDVMCTAHDNEET 194
      1 CALPNIRENGELADCTCKQEPERNECFLOHKDNPCLPPEPBEAEAMCTSKFENPTTF 60

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QY      195 LKKTLYELARRHPYFVAPELLFFPAKRYKAAPTECCOQADRAACL 254
      61 MGHYHEVARRHPYFVAPELLFFPAKRYKAAPTECCOQADRAACL 120
QY      255 KORLKCAASLOKGERBFKMAVAVARLSQRPKPAEAVSKLVTDLTKYHTECGHDLLECA 314
      121 KORMKCSNQKGERBFKMAVAVARLSQRPKPAEAVSKLVTDLTKYHTECGHDLLECA 180
QY      315 DDRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMPADLPALADFVESKD 374
      181 DDRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMPADLPALADFVEDQE 240
QY      375 VCKNYAEADVFLGMPLYEYARRHPDYSVLLRLAKYETTLLEKCCAAADPHBCYAKV 434
      241 VCKNYAEADVFLGMPLYEYARRHPDYSVLLRLAKYETTLLEKCCAAADPHBCYAKV 300
QY      435 DEFPKPLVEEPONLTKONCELPFOLEGYKQNALVRYTKVPOVSTPLTVESRNILGKV 494
      301 AEFQPLVEEPONLTKONCELPFOLEGYKQNALVRYTKVPOVSTPLTVESRNILGKV 360
QY      495 SKCKHPEAKMPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALBYD 554
      361 TKCCTLPEDQRLPCVEDYLSALINRVCLLHEKTPVSEHTKCCSSGLVERPCFSALBYD 420
QY      555 ETVYPERFAETFTFHADICTLSEKEROIKKQTLVBLVNHKPK 587
      421 ETVYPERFAETFTFHADICTLSEKEROIKKQTLVBLVNHKPK 453
Db
RESULT 11
ABCS
serum albumin precursor - chicken
C/Species: Gallus gallus (chicken)
C/Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004
C/Accession: S15571; A05078; A13451
R/Casadey, A.I.; Salikid, C.K.; Baverstock, P.; Wallace, J.C.
submitted to the EMBL Data Library, July 1991
A/Reference number: S15571
A/Accession: S15571
A/Molecule type: mRNA
A/Residues: 1-615 <CAAS>
A/Cross-references: UNIPROT:P19121; UNIPARC:UPI00001257C1; EMBL:X60688; NID:963747; PIDN:
R/Hache, R.U.G.; Wiskocil, R.; Vasa, M.; Roy, R.N.; Lau, P.C.K.; Deeley, R.G.
J. Biol. Chem. 258, 4556-4564, 1983
A/Title: The 5' noncoding and flanking regions of the avian very low density apolipoprot
A/Reference number: A05078; MUID:83161037; PMID:6187737
A/Accession: A05078
A/Molecule type: DNA
A/Residues: 1-28 <HAC>
A/Cross-references: UNIPARC:UPI000017128E; GB:V00381; NID:963038; PIDN:CAA23680.1; PID:
R/Rosen, A.M.; Geller, D.M.
Biochem. Biophys. Res. Commun. 78, 1060-1066, 1977
A/Title: Chicken microsomal albumin: amino terminal sequence of chicken proalbumin.
A/Reference number: A13451; MUID:78019943; PMID:911327
A/Accession: A13451
A/Molecule type: protein
A/Residues: 19-23, 'M', 25-30 <ROS>
A/Cross-references: UNIPARC:UPI000017441B
C/Comment: Serum albumin is synthesized in the liver as preproalbumin. It binds copper,
mones (weak bonds with these hormones promote their transfer across the membranes), thy
C/Superfamily: serum albumin; serum albumin repeat homology
C/Keywords: carrier protein; duplication; metal binding; plasma
F/1-18/Domain: signal sequence #status predicted <Sig>
F/19-26/Domain: propeptide #status predicted <Pro>
F/27-613/Product: serum albumin #status predicted <Mat>
F/32-206/Domain: serum albumin repeat homology <SA1>
F/225-398/Domain: serum albumin repeat homology <SA2>
F/417-596/Domain: serum albumin repeat homology <SA3>
F/30/Binding site: copper (His) #status predicted
F/80-89, 102-118, 117-128, 152-197, 196-205, 228-274, 273-281, 293-307, 306-317, 344-389, 388-397,

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Query Match      45.7%; Score 1562; DB 1; Length 615;
Best Local Similarity 46.9%; Pred. No. 5.5e-95;

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A.Molecule type: mRNA
A.Residues: 1-609 <MOR>
A.Cross-references: UNIPARC:UPI00000112A3; GB:J00077; MID:9311348; PIDN:CAA24758.1; PID:Gene 20, 415-422, 1982
R.Beattie, W.G.; Dugaiczyk, A.
A.Title: Structure and evolution of human alpha-fetoprotein deduced from partial sequencing
A.Reference number: A91497; MUID:83158778; PMID:6187626
A.Accession: A91497
A.Molecule type: mRNA
A.Residues: 429-556 <BEA>
A.Cross-references: UNIPARC:UPI0000174421; GB:J00076
R.Pucci, P.; Siciliano, R.; Malorni, A.; Marino, G.; Tecce, M.F.; Ceccarini, C.; Terrana Biochemistry 30, 5061-5066, 1991
A.Title: Human alpha-fetoprotein primary structure: a mass spectrometric study.
A.Reference number: A23699; MUID:91242409; PMID:1709810
A.Accession: A23699
A.Molecule type: protein
A.Residues: 19-45;60-97;102-107;122-184;187-249;255-489;507-609 <PUC>
A.Cross-references: UNIPARC:UPI0000174422; UNIPARC:UPI0000174423; UNIPARC:UPI0000174424;
R.Tecce, M.F.; Terrana, B.; Giuliani, M.M.; Ceccarini, C.
J. Mol. Med. Allied Sci. 34, 213-216, 1990
A.Title: Characterization of in vitro expressed human alpha-fetoprotein as highly reproducible
A.Reference number: A61480; MUID:91225826; PMID:1709209
A.Accession: A61480
A.Molecule type: protein
A.Residues: 19-45;63-97;102-107;122-184;187-249;255-489;507-609 <TEC>
A.Cross-references: UNIPARC:UPI0000174422; UNIPARC:UPI0000174424; UNIPARC:UPI0000174425;
R.Yachnin, S.; Hsu, R.; Heinrichson, R.L.; Miller, J.B.
Biochem. Biophys. Acta 493, 418-428, 1977
A.Title: Studies on human alpha-fetoprotein. Isolation and characterization of monomeric
A.Reference number: A90624; MUID:77242506; PMID:70228
A.Accession: A90624
A.Molecule type: protein
A.Residues: 'S', 20-22, 'S', 24-35 <YAC>
A.Cross-references: UNIPARC:UPI000017442A
A.Note: dimeric and trimeric forms have been found in addition to the monomeric form
R.Aoyagi, Y.; Ikenaka, T.; Ichida, F.
Cancer Res. 37, 3663-3667, 1977
A.Title: Comparative chemical structure of human alpha-fetoproteins from fetal serum and
A.Reference number: A90757; MUID:78001760; PMID:71198
A.Accession: A90757
A.Molecule type: protein
A.Residues: 'S', 20-30, 'A', 32-37, 'A' <NOY>
A.Cross-references: UNIPARC:UPI000017442B
R.Ruoslahti, E.; Pihko, H.; Vaheri, A.; Seppala, M.; Virolainen, M.; Kontinen, A.
Johns Hopkins Med. J. Suppl. 3, 249-255, 1974
A.Title: 20. Alpha fetoprotein: structure and expression in man and inbred mouse strains
A.Reference number: A93042; MUID:75018719; PMID:4138095
A.Accession: A93042
A.Molecule type: protein
A.Residues: 'S', 20-24, 'Q', 26-30, 'A', 32-35, 'E', 37-39 <RNO>
A.Cross-references: UNIPARC:UPI000017442C
R.Sakai, M.; Morinaga, T.; Umano, Y.; Watanabe, K.; Wegmann, T.G.; Tamaoki, T.
J. Biol. Chem. 260, 5055-5060, 1985
A.Title: The human alpha-fetoprotein gene. Sequence organization and the 5' flanking region
A.Reference number: A92520; MUID:85182629; PMID:2580830
A.Contents: annotation; gene, exons and introns
R.Aoyagi, Y.; Ikenaka, T.; Ichida, F.
Cancer Res. 38, 3483-3486, 1978
A.Title: Copper(II)-binding ability of human alpha-fetoprotein.
A.Reference number: A90758; MUID:79001617; PMID:80265
A.Contents: annotation; metal binding
R.Aoyagi, Y.; Ikenaka, T.; Ichida, F.
Cancer Res. 39, 3571-3574, 1979
A.Title: alpha-fetoprotein as a carrier protein in plasma and its bilirubin-binding ability
A.Reference number: A90759; MUID:80001710; PMID:89900
A.Contents: annotation; bilirubin binding
C.Comment: AFP is synthesized by the fetal liver and yolk sac. It occurs in the plasma to trace amounts after birth. The serum level in adults is usually less than 40 ng/mL. AFP C.Comment: Human AFP binds copper, nickel, and fatty acids as well as, and the bilirubin properties.
CGenetics: GDB:AFP

A:Cross-references: GDB:119660; OMIM:104150
A:Map position: 4q11.4q13
A:Introns: 29/1; 46/2; 90/3; 161/2; 205/3; 238/2; 281/3; 353/2; 397/3; 430/2; 476/3; 551/2
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C:Keywords: embryo; fetus; globulin; glycoprotein; metal binding; plasma
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F:19-609/Product: alpha-fetoprotein #status experimental <MAT>
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F:221-394/Domain: serum albumin repeat homology <SA2>
F:413-592/Domain: serum albumin repeat homology <SA3>
F:12/Binding site: copper (His) #status experimental
F:99-114,113-124,148-193,192-201,224-270,269-277,289-303,302-313,348-393,416-462,461-472
F:251/Binding site: bilirubin (Lys) #status predicted
F:251/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 36.8%; Score 1255.5; DB 1: Length 609;
Best Local Similarity 39.5%; Pred. No. 6,2e-75;
Matches 237; Conservative 118; Mismatches 238; Indels 7; Gaps 3;

52 FIAALVGRDAHSE-----VAHFKDLGSENFRAVLILPAQYLQCPREDVHKLNEV 106
11 FLNFTSRTLRREYGIASLDSYQTAISLADLTTFPAQVDAATKEVSKWKDA 70
107 TEPAATCADEASANCCKSLHTLFGDLCTVATLRTEYGEAMACCAQEBERNECFLOHK 166
71 LTALEKPRGDSQSGCLLENQLPAFLERLCEHKEILEYKH-SDDCSSEGRNCFIAHK 129
167 DDNP-NLPRLVPEVDVCTAFHNDNEETFLKKYLVEIARRHPYFYABELLFFAKRYKAF 225
130 KPTASIPFLFQVPRPATSCEAYEEDRETFMNKFYEIARRHPFLYAPITILMARAYKII 189
226 TECQADAKAACLPLKDELDEBKASAKQRLKASLQKFRGAPFAMAVARLSQFPK 285
190 PSCKAEAAVECFQTKAATYVKELRESSLNLQHAQAWKNGFRTFQAITVTYLSQFVK 249
286 AEPASVSLVLDLTKYHTECCGDLLECADDRADIAXYICENODSISKLCECEKPLE 345
250 VNFETIQKLVDAVAVHNEHCRCGDVLDCLDQDEKIMSYICSQDPTLSNKTTECKKLTLE 309
346 KSHCIAEYENDEMPADLPSLAADFESKDYCKNYAEKDVFLGMLFVEYARRHPDYSVL 405
310 RGCCI IHAENDEKEGEGSLPNLNRFLGDRDFNQFSSEKNIFLASVFEYERRHQLAVSV 369
406 LLRLAKTYETTLLEKCCAAADPHCEYAVPDEPKVLVEEPQNLKONELFEQGEYKFEON 465
370 ILRAVKGQELLEKCFQTENPLEECODKGESELOKYIOESQALARRSGFLQKGEYYLON 429
466 ALLRYRYKKVQVSTPTPLVEVSRNLGKVGSKCGKHPAKMPCAEADLVSLNQLCVLHE 525
430 AFLVAATKKAPQVLSSELMAITRMAATATTCQLSDKLACGEGAAADIIIGHLCTRHE 489
526 KTPVSDRYTKCTESLVLNRRPFCFSALEVDETVYPKFEAETFTFHADICTLSEKEROIKK 585
490 MTPVNPVGQCCCTSSYANRRPCFSSLVDEYVPAASDDKFIPIHKOLCOAQGVALQTMK 549
586 QIALVELYKAPKATKQQLKAVMDPAAFBEKCKKADKETCPAEBEKKVAASQAALGL 645
550 QEPFLINLVKQRPQITTEQLLEAVLADFSGLLERKCCQGEQVECAEBEQKLISKTRALGV 609

RESULT 14
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C:Species: Gorilla gorilla (gorilla)
C:Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004
C:Accession: A37970
R:Ryan, S.C.; Zielinski, R.; Dugalczyk, A.
Genomacs 9, 60-72, 1991
A:Title: Structure of the gorilla alpha-fetoprotein gene and the divergence of primates
A:Reference number: A37970; MUID:91169517; PMID:11706310
A:Accession: A37970
A:Molecule type: DNA
A:Residues: 1-609 <RTA>

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 19, 2006, 11:57:02 ; Search time 170.412 Seconds

(without alignments)
2670.387 Million cell updates/sec

Title: US-10-775-180-447_COPY_30_674

Perfect score: 3417
Sequence: 1 HEGGRTSDVSSYLEGQAK.....TCFAERGGKLVASQALGL 645

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_05.80.*
1: uniprot_sprot.*
2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	3108	91.0	609	1	ALBU_HUMAN
2	3108	91.0	609	2	Q645G4_HUMAN
3	3108	91.0	609	2	Q5NVH5_PONPY
4	3084	90.3	609	2	Q68DN5_HUMAN
5	3073	89.9	609	2	Q56G89_HUMAN
6	3066	89.7	627	2	Q5D0D7_HUMAN
7	2947	86.2	600	1	ALBU_MACMU
8	2627	76.9	608	1	ALBU_FELICA
9	2574	75.3	608	1	ALBU_CANPA
10	2509	73.4	608	2	Q95VB7_SCHMA
11	2501.5	72.6	607	1	ALBU_BOVUS
12	2481.5	72.6	607	1	ALBU_HORSE
13	2469	72.3	608	2	Q5B6G8_MICFO
14	2462	72.1	608	1	ALBU_RABIT
15	2460	72.0	608	2	Q5B6G9_MICFO
16	2455.5	71.9	607	1	ALBU_BOVIN
17	2438	71.3	608	2	Q5U3X3_RAT
18	2437.5	71.3	607	1	ALBU_SHEEP
19	2431	71.1	608	1	ALBU_RAT
20	2409.5	70.5	607	1	ALBU_PIG
21	2392	70.0	608	2	Q6WDN3_CAVPO
22	2387.5	69.9	609	1	ALBU_MERUN
23	2383	69.7	608	1	ALBU_MOUSE
24	2383	69.7	608	2	Q546G4_MOUSE
25	2379.5	69.6	583	2	Q6B3Z0_ELIMA
26	2379	69.6	583	2	Q6C7H3_MOUSE
27	2336	68.4	576	2	Q6C7C7_MOUSE
28	1991	58.3	417	2	Q6Y6G0_HUMAN
29	1870.5	54.7	396	2	Q81UK7_HUMAN
30	1562	45.7	615	1	ALBU_CHICK
31	1295.5	37.9	527	2	Q6JIA5_SHEPU

32	1260.5	36.9	609	1	FETA_PANTR	Q28789 pan troglod
33	1256.5	36.8	609	1	FETA_HUMAN	P02771 homo sapien
34	1249.5	36.6	609	1	FETA_GORGO	P28050 gorilla gor
35	1242	36.3	609	2	Q8MU05_CANFA	Q8MU05 canis fam11
36	1242	36.3	625	2	Q8MU05_AMBMC	Q8MU05 ambystoma m
37	1218.5	35.7	610	2	Q8MU76_PIG	Q8MU76 sus scrofa
38	1215.5	35.6	609	2	Q5CZ21_XENTR	Q5CZ21 xenopus tro
39	1207.5	35.3	607	1	ALBU2_XENIA	P14872 xenopus lae
40	1201.5	35.2	607	2	Q642P7_XENIA	Q642P7 xenopus lae
41	1200	35.1	609	1	FETA_HORSE	P49066 equus cabal
42	1183.5	34.6	608	2	Q7SF3_MARMO	Q7SF3 marmota mon
43	1178.5	34.5	606	1	FETA_CHICK	P84407 gallus gall
44	1164.5	34.1	615	1	ALBU_XENIA	P08759 xenopus lae
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ALIGNMENTS

RESULT 1
ID ALBU_HUMAN STANDARD: PRT: 609 AA.
AC P02768; Q95574; P04277; Q13140; Q6UXK4; Q9P157; Q9P117; Q9UH83;
AC Q9UJ20;
DT 21-JUL-1986 (Rel. 01, Created)
DT 01-APR-1990 (Rel. 14, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Serum albumin precursor.
GN Name=ALB;
GN ORFNames=PRO0903, PRO1708, PRO2044, PRO2619, PRO2675, UNQ696/PRO1341;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OC NCBI_TaxID=9606;
OX [1]
RN NUCLEOTIDE SEQUENCE [GENOMIC DNA].
RX MEDLINE=86196112; PubMed=3009475;
RA Minghetti P.P., Ruffner D.E., Kuang W.J., Dennison O.E., Hawkins J.W.,
RT Beattie W.G., Dugalczyk A.,
RT "Molecular structure of the human albumin gene is revealed by
RT nucleotide sequence within q11-22 of chromosome 4.";
RT J. Biol. Chem. 261:6747-6757(1986).
RN [2]
RL NUCLEOTIDE SEQUENCE [MRNA], AND VARIANT LYS-420.
RP MEDLINE=82081882; PubMed=6171778;
RX Lawn R.W., Adelman J., Bock S.C., Franke A.E., Houck C.M.,
RA Najarian R.C., Seeburg P.H., Wion K.L.;
RT "The sequence of human serum albumin cDNA and its expression in E.
RT coli.";
RL Nucleic Acids Res. 9:6103-6114(1981).
RN [3]
RN NUCLEOTIDE SEQUENCE [MRNA], AND VARIANT GLY-121.
RP MEDLINE=82105994; PubMed=6275391;
RX Dugalczyk A., Law S.W., Dennison O.E.;
RA "Nucleotide sequence and the encoded amino acids of human serum
RT albumin mRNA.";
RL Proc. Natl. Acad. Sci. U.S.A. 79:71-75(1982).
RN [4]
RN NUCLEOTIDE SEQUENCE [MRNA].
RP TISSUE=Liver;
RC Yang S., Zhang R.A., Qi Z.W., Yuan Z.Y.;
RA "Human serum albumin.";
RL Submitted (SEP-1999) to the EMBL/GenBank/DBJ databases.
RN [5]
RN NUCLEOTIDE SEQUENCE [MRNA], AND VARIANT HIROSHIMA-1 LYS-378.
RP Huang M.C., Wu H.T.;
RA "The cDNA sequences of human serum albumin.";
RL Submitted (AUG-2002) to the EMBL/GenBank/DBJ databases.
RN [6]
RN NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RP TISSUE=Fetal liver;
RX MEDLINE=21376145; PubMed=11483580; DOI=10.1101/gr.175501;

RA Yu Y., Zhang C., Zhou G., Wu S., Qu X., Wei H., Xing G., Dong C.,
RA Zhai Y., Wan J., Ouyang S., Li L., Zhang S., Zhou K., Zhang Y., Wu C.,
RA He F.;
RT "Gene expression profiling in human fetal liver and identification of
RT tissue- and developmental-stage-specific genes through compiled
RT expression profiles and efficient cloning of full-length cDNAs";
RN Genome Res. 11:1392-1403(2001).
RN [17]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC TISSUE=Liver, and Skeletal muscle;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strassberg R.L., Feingold E.A., Grouse L.H., Dege J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shennan C.M., Schuler G.D.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordon H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldi M.F., Casavant T.L., Schetz T.E.,
RA Brownstein M.J., Udell T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Rahy J., Helton E., Kettman M., Madan A., Rodighiero Y., Bouffard G.G.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalek U., Smalins D.E.,
RA Scherach A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences";
RN Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [18]
RP PROTEIN SEQUENCE OF 25-609.
RX MEDLINE=76187907; PubMed=1225573; DOI=10.1016/0014-5793(75)80242-0;
RA Meloun B., Moravek L., Kostka V.;
RT "Complete amino acid sequence of human serum albumin.";
RN FEBS Lett. 58:134-137(1975).
RN [19]
RP PROTEIN SEQUENCE OF 25-609.
RX Brown J.R., Shockley P., Behrens P.Q.;
RT (In) Bing D.H. (eds.);
RL The chemistry and physiology of the human plasma proteins, pp.23-40,
RL Pergamon Press, New York (1979).
RN [10]
RP NUCLEOTIDE SEQUENCE OF 1-455.
RC TISSUE=Liver;
RA Menaya J., Parrilla R., Ayuso M.S.;
RN Submitted (MAR-1995) to the EMBL/GenBank/DBJ databases.
RN [11]
RP NUCLEOTIDE SEQUENCE OF 1-26.
RX MEDLINE=86140099; PubMed=2419329;
RA Urano Y., Matanabe K., Sakai M., Tamaki T.;
RT "The human albumin gene. Characterization of the 5' and 3' flanking
RT regions and the polymorphic gene transcripts.";
RN J. Biol. Chem. 261:3244-3251(1986).
RN [12]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] OF 1-167.
RX MEDLINE=22867296; PubMed=12975309; DOI=10.1101/gr.1293003;
RA Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D.T., Brush J.,
RA Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P.,
RA Eaton D., Foster J.S., Grimaldi C., Gu Q., Hass P.E., Heldens S.,
RA Huang A., Kim H.S., Klumowski L., Jin Y., Johnson S., Lee J.,
RA Lewis L., Liao D., Mark M.R., Robbie E., Sanchez C., Schoenfeld J.,
RA Seeshagiri S., Simons L., Singh J., Smith V., Stinson J., Vagts A.,
RA Vandlen R.L., Matanabe C., Wleand D., Woods K., Xie M.-H.,
RA Yansura D.G., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A.D.,
RA Wood W.I., Godowski P.J., Gray A.M.;
RT "The secreted protein discovery initiative (SPDI), a large-scale
RT effort to identify novel human secreted and transmembrane proteins: a
RT bioinformatics assessment";
RN Genome Res. 13:2265-2270(2003).
RN [13]
RP PROTEIN SEQUENCE OF 222-229.

RX MEDLINE=76257808; PubMed=955075; DOI=10.1016/0014-5793(76)80496-6;
RA Walker J.E.;
RT "Lysine residue 199 of human serum albumin is modified by
RT acetylsalicylic acid.";
RN FEBS Lett. 66:173-175(1976).
RN [14]
RP PROTEIN SEQUENCE OF 25-44 AND 480-499.
RC TISSUE=Heart;
RX MEDLINE=95203287; PubMed=7895732;
RA Corbett J.M., Wheeler C.H., Baker C.S., Yacoub M.H., Dunn M.J.;
RT "The human myocardial two-dimensional gel protein database: update
RT 1994.";
RN Electrophoresis 15:1459-1465(1994).
RN [15]
RP PROTEIN SEQUENCE OF 166-174.
RX MEDLINE=86242180; PubMed=3087352;
RA Mogard M.H., Kobayashi R., Chen C.F., Lee T.D., Reeve J.R., Jr.,
RA Shively J.E., Walsh J.H.;
RT "The amino acid sequence of kinetensin, a novel peptide isolated from
RT pepsin-treated human plasma: homology with human serum albumin,
RT neurotensin and angiotensin.";
RN Biochem. Biophys. Res. Commun. 136:983-988(1986).
RN [16]
RP PROTEIN SEQUENCE OF 166-174.
RX MEDLINE=87194805; PubMed=2437111;
RA Cartaway R.E., Mitra S.P., Cochran D.E.;
RT "Structure of a biologically active neurotensin-related peptide
RT obtained from pepsin-treated albumin(s)";
RN J. Biol. Chem. 262:5968-5973(1987).
RN [17]
RP DISULFIDE BONDS.
RA Sabar M.A., Stockbauer P., Moravek L., Meloun B.;
RT "Disulfide bonds in human serum albumin";
RN Collect. Czech. Chem. Commun. 42:564-579(1977).
RN [18]
RP BILIRUBIN-BINDING SITE.
RX MEDLINE=78186630; PubMed=656055;
RA Jacobsen C.;
RT "Lysine residue 240 of human serum albumin is involved in high-
RT affinity binding of bilirubin.";
RN Biochem. J. 171:453-459(1978).
RN [19]
RP VARIANT CANTERBURY ASN-337.
RX MEDLINE=87157744; PubMed=3828358; DOI=10.1016/0167-4838(87)90088-4;
RA Brennan S.O., Herbert P.;
RT "Albumin Canterbury (313 Lys-->Asn). A point mutation in the second
RT domain of serum albumin.";
RN Biochim. Biophys. Acta 912:191-197(1987).
RN [20]
RP VARIANTS NASKAPI/MERSIN GLU-396 AND MEXICO GLY-574.
RX MEDLINE=87260818; PubMed=3474609;
RA Takahashi N., Takahashi Y., Blumberg B.S., Putnam F.W.;
RT "Amino acid substitutions in genetic variants of human serum albumin
RT and in sequences inferred from molecular cloning.";
RN Proc. Natl. Acad. Sci. U.S.A. 84:4413-4417(1987).
RN [21]
RP VARIANTS NAGASAKI-3 GLN-27 YANOMAMA-2 GLU-396; NAGASAKI-2 ASN-399 AND
RP MAKU GLU-565.
RX MEDLINE=88068523; PubMed=3479777;
RA Takehashi N., Takahashi Y., Isebe T., Putnam F.W., Fujita M.,
RA Satoh C., Neel J.V.;
RT "Amino acid substitutions in inherited albumin variants from
RT American and Japanese populations.";
RN Proc. Natl. Acad. Sci. U.S.A. 84:8001-8005(1987).
RN [22]
RP VARIANTS FUKUOKA-2 HIS-23; CHRISTCHURCH/HONOLULU-2 GLN-24; TAGLIACCOZZO
RP ASN-337 AND ALBUMIN B/OSAKA-2/PHNOM PHEN LYS-594.
RX MEDLINE=89098947; PubMed=2911589;
RA Arai K., Ishioka N., Huse K., Madison J., Putnam F.W.;
RT "Identical structural changes in inherited albumin variants from
RT different populations";
RN Proc. Natl. Acad. Sci. U.S.A. 86:434-438(1989).
RN [23]

RP VARIANTS HONOLULU-2 GLN-24; NAGASAKI-1 GLY-293; HIROSHIMA-1 LYS-378;
RP TOCHIGI LYS-400; HIROSHIMA-2 LYS-406 AND OSAKA-2 LYS-594.

Query Match 91.0%; Score 3108; DB 1; Length 609;
Best Local Similarity 100.0%; Pred. No. 1,9e-188;

Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY RDHAKSEVAFHFDLGEENFKALVLIAPAYIQOCCPEHDVKKVNEVTEFAKTCVADESA 119
DB RDHAKSEVAFHFDLGEENFKALVLIAPAYIQOCCPEHDVKKVNEVTEFAKTCVADESA 83
QY 120 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKQPERNECFLOHKDNPMLPRIVRE 179
DB 84 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKQPERNECFLOHKDNPMLPRIVRE 143
QY 180 VDVWCTAFHDNEETFLKYLVEIARRHPYFAPPELLFPAKRYKAATECCOAAADKAACTL 239
DB 144 VDVWCTAFHDNEETFLKYLVEIARRHPYFAPPELLFPAKRYKAATECCOAAADKAACTL 203
QY 240 PKLDELDEGKASSAKQRLKCSLQKGERAFKAMAVARLSQRPKAEFAVSKLVTDLT 239
DB 204 PKLDELDEGKASSAKQRLKCSLQKGERAFKAMAVARLSQRPKAEFAVSKLVTDLT 263
QY 300 KYHTECGHDLLECADRADLAKYICENODSISSKLKECCPKLSEKSHCIAEVENDEMP 359
DB 264 KYHTECGHDLLECADRADLAKYICENODSISSKLKECCPKLSEKSHCIAEVENDEMP 323
QY 360 ADLPSLAADFVESKDVCKNYAEKADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 419
DB 324 ADLPSLAADFVESKDVCKNYAEKADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 383
QY 420 CCAADPHCEYAKVFDEFPKLYVEEPQNLIKONCELEFQJGEYKFNALLVRYTKVPOVS 479
DB 384 CCAADPHCEYAKVFDEFPKLYVEEPQNLIKONCELEFQJGEYKFNALLVRYTKVPOVS 443
QY 480 TPTLVEVSRLGKVGSKCCGHPKAPKPCAEVLYSVLNLQCVLHEKTPVSDRYTKCTE 539
DB 444 TPTLVEVSRLGKVGSKCCGHPKAPKPCAEVLYSVLNLQCVLHEKTPVSDRYTKCTE 503
QY 540 SLVNRRCFSALAEVDITYVPKEFNAETFTFHADICTLSEKEROIKKOTALVELVKHKPKA 599
DB 504 SLVNRRCFSALAEVDITYVPKEFNAETFTFHADICTLSEKEROIKKOTALVELVKHKPKA 563
QY 600 TKEQLKAVMDPFAAFVEKCCAKADKXETCFABEGKULVAASQAALGL 645
DB 564 TKEQLKAVMDPFAAFVEKCCAKADKXETCFABEGKULVAASQAALGL 609

RESULT 2
Q645G4_HUMAN PRELIMINARY; PRT; 609 AA.
ID Q645G4_HUMAN PRELIMINARY; PRT; 609 AA.
AC Q645G4;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)
DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE Serum albumin.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;
OC Homo.
NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RA Yu Z., Fu Y.;
RT "High Expression HSA in Pichia for Pharmaceutical Use."
RL Submitted (AUG-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY128024; AA021642.1; -, mRNA.
SQ SEQUENCE 609 AA; 69366 MW; F88F61DD242B818 CRC64;

Query Match 91.0%; Score 3108; DB 2; Length 609;
Best Local Similarity 100.0%; Pred. No. 1,9e-188;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 60 RDHAKSEVAFHFDLGEENFKALVLIAPAYIQOCCPEHDVKKVNEVTEFAKTCVADESA 119
DB 24 RDHAKSEVAFHFDLGEENFKALVLIAPAYIQOCCPEHDVKKVNEVTEFAKTCVADESA 83
QY 120 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKQPERNECFLOHKDNPMLPRIVRE 179
DB 84 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKQPERNECFLOHKDNPMLPRIVRE 143
QY 180 VDVWCTAFHDNEETFLKYLVEIARRHPYFAPPELLFPAKRYKAATECCOAAADKAACTL 239
DB 144 VDVWCTAFHDNEETFLKYLVEIARRHPYFAPPELLFPAKRYKAATECCOAAADKAACTL 203
QY 240 PKLDELDEGKASSAKQRLKCSLQKGERAFKAMAVARLSQRPKAEFAVSKLVTDLT 239
DB 204 PKLDELDEGKASSAKQRLKCSLQKGERAFKAMAVARLSQRPKAEFAVSKLVTDLT 263
QY 300 KYHTECGHDLLECADRADLAKYICENODSISSKLKECCPKLSEKSHCIAEVENDEMP 359
DB 264 KYHTECGHDLLECADRADLAKYICENODSISSKLKECCPKLSEKSHCIAEVENDEMP 323
QY 360 ADLPSLAADFVESKDVCKNYAEKADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 419
DB 324 ADLPSLAADFVESKDVCKNYAEKADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 383
QY 420 CCAADPHCEYAKVFDEFPKLYVEEPQNLIKONCELEFQJGEYKFNALLVRYTKVPOVS 479
DB 384 CCAADPHCEYAKVFDEFPKLYVEEPQNLIKONCELEFQJGEYKFNALLVRYTKVPOVS 443
QY 480 TPTLVEVSRLGKVGSKCCGHPKAPKPCAEVLYSVLNLQCVLHEKTPVSDRYTKCTE 539
DB 444 TPTLVEVSRLGKVGSKCCGHPKAPKPCAEVLYSVLNLQCVLHEKTPVSDRYTKCTE 503
QY 540 SLVNRRCFSALAEVDITYVPKEFNAETFTFHADICTLSEKEROIKKOTALVELVKHKPKA 599
DB 504 SLVNRRCFSALAEVDITYVPKEFNAETFTFHADICTLSEKEROIKKOTALVELVKHKPKA 563
QY 600 TKEQLKAVMDPFAAFVEKCCAKADKXETCFABEGKULVAASQAALGL 645
DB 564 TKEQLKAVMDPFAAFVEKCCAKADKXETCFABEGKULVAASQAALGL 609

RESULT 3
Q5NVH5_PONPY PRELIMINARY; PRT; 609 AA.
ID Q5NVH5_PONPY PRELIMINARY; PRT; 609 AA.
AC Q5NVH5;
DT 01-FEB-2005 (TrEMBLrel. 29, Created)
DT 01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
DT 01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
DE Hypothetical protein DKFp459F2310.
GN Name=DKFp459F2310.
OS Pongo pygmaeus (Orangutan).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;
OC Pongo.
NCBI_TaxID=9600;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Cortex;
RG The German cDNA Consortium;
RA Wamburt R., Heubner D., Mewes H.W., Weill B., Amlid C., Osanger A.,
RL Submitted (NOV-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; CR926060; CA129688.1; -, mRNA.
DR SMR; Q5NVH5; 26-608.
DR GO; GO:0005615; C:extracellular space; IEA.
DR GO; GO:0005386; F:carrier activity; IEA.
DR GO; GO:0006810; P:transport; IEA.
DR InterPro; IPR001703; Alphafetoprot.
DR InterPro; IPR00264; Serum albumin.
DR Pfam; PF00273; Serum albumin; 3.
DR PRINTS; PR00803; AFEOTPROTEIN.
DR PRINTS; PR00802; SERUMALBUMIN.

DR ProDom; PD002486; Serum albumin; 1.
 DR SMART; SM00103; ALBUMIN; 3.
 DR PROSITE; PS00212; ALBUMIN; 3.
 KW Hypothetical protein.
 SQ SEQUENCE 609 AA; 69366 MW; F88FF61DD242B818 CRC64;

Query Match 91.0%; Score 3108; DB 2; Length 609;
 Best Local Similarity 100.0%; Pred. No. 1.9e-188;
 Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 60 RDAHSEVVAHREFKDIAGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEFAKTCVADESA 119
DB 24 RDAHSEVVAHREFKDIAGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEFAKTCVADESA 83
QY 120 ENCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKOPEPNECEFLQHKDNPMLPRLVPE 179
DB 84 ENCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKOPEPNECEFLQHKDNPMLPRLVPE 143
QY 180 VDVMTCTAFHNEETFLKLYEIAARRHPYFYAPELLFPKRYKAAFTBCCQAADKAAACL 239
DB 144 VDVMTCTAFHNEETFLKLYEIAARRHPYFYAPELLFPKRYKAAFTBCCQAADKAAACL 203
QY 240 PKLDELRLDEGKASSAKQRLKCSLQKFGERAFAKAVAVARLSQRFPAEFAEYSKLVTDLT 299
DB 204 PKLDELRLDEGKASSAKQRLKCSLQKFGERAFAKAVAVARLSQRFPAEFAEYSKLVTDLT 263
QY 300 KYHTECCGHDLLECADRDADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 359
DB 264 KYHTECCGHDLLECADRDADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 323
QY 360 ADLPSTLAADFVESKDVCKNYAEAKDVFGLMFLYEYARRHPDYSVLLRLAKTYETTLK 419
DB 324 ADLPSTLAADFVESKDVCKNYAEAKDVFGLMFLYEYARRHPDYSVLLRLAKTYETTLK 383
QY 420 CCAAADPHECYAKVPEFEPRLVEBPONLIKONCELFEOUGEYKFNALLVRYTKKVPQVS 479
DB 384 CCAAADPHECYAKVPEFEPRLVEBPONLIKONCELFEOUGEYKFNALLVRYTKKVPQVS 443
QY 480 TPTLVEVSNNLGVGSKCKHPEAKRMPCAEDYLSVNLQCLVLEKTPVSDRYTKCCTE 539
DB 444 TPTLVEVSNNLGVGSKCKHPEAKRMPCAEDYLSVNLQCLVLEKTPVSDRYTKCCTE 503
QY 540 SLVNRPPCFSALEVDETVYVPEFNAETFTFHADICTLSEKEROIKKQALVELVHKPKYA 599
DB 504 SLVNRPPCFSALEVDETVYVPEFNAETFTFHADICTLSEKEROIKKQALVELVHKPKYA 563
QY 600 TKEQLKAVMDPFAAFVEKCKCKADKETCPAEBSGKLVAAASQAALGI 645
DB 564 TKEQLKAVMDPFAAFVEKCKCKADKETCPAEBSGKLVAAASQAALGI 609

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RESULT 4
 Q68DN5 HUMAN PRELIMINARY; PRT; 609 AA.

AC Q68DN5;
 DT 25-OCT-2004 (TrEMBLrel. 28, Created)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
 DE Hypothetical protein DKFZp779N1935.
 GN Name=DKFZp779N1935;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominoidea;
 OC Homo.
 OC NCBI_TaxID=9606;
 RN NUCLEOTIDE SEQUENCE.
 RC TISSUE=Liver;
 RG The German cDNA Consortium;
 RA Bloeker H., Becher M., Brandt P., Mewes H.W., Weil B., Amid C.,
 RA Osanger A., Fodor G., Han M., Wiemann S.;
 RL Submitted (Aug-2004) to the EMBL/GenBank/DBJ databases.
 DB EMBL; CR749331; CAH18185.1; -; mRNA.

DR SMR; Q68DN5; 26-608.
 DR GO; GO:0005615; C:extracellular space; IEA.
 DR GO; GO:0005386; F:carrier activity; IEA.
 DR GO; GO:0006810; P:transport; IEA.
 DR InterPro; IPR001703; AlphaFetoprot.
 DR InterPro; IPR000264; Serum albumin.
 DR Pfam; PF00273; Serum albumin; 3.
 DR PRINTS; PR00803; AFETOPROTEIN.
 DR PRINTS; PR00802; SERUMALBUMIN.
 DR ProDom; PD002486; Serum albumin; 1.
 DR SMART; SM00103; ALBUMIN; 3.
 DR PROSITE; PS00212; ALBUMIN; 3.
 KW Hypothetical protein.
 SQ SEQUENCE 609 AA; 69402 MW; 3BA3AF17BF99E94 CRC64;

Query Match 90.3%; Score 3084; DB 2; Length 609;
 Best Local Similarity 99.1%; Pred. No. 6.2e-187;
 Matches 581; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

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QY 60 RDAHSEVVAHREFKDIAGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEFAKTCVADESA 119
DB 24 RDAHSEVVAHREFKDIAGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEFAKTCVADESA 83
QY 120 ENCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKOPEPNECEFLQHKDNPMLPRLVPE 179
DB 84 ENCDKSLHTLFGDKLCTVAITLRETYGEMADCCAKOPEPNECEFLQHKDNPMLPRLVPE 143
QY 180 VDVMTCTAFHNEETFLKLYEIAARRHPYFYAPELLFPKRYKAAFTBCCQAADKAAACL 239
DB 144 VDVMTCTAFHNEETFLKLYEIAARRHPYFYAPELLFPKRYKAAFTBCCQAADKAAACL 203
QY 240 PKLDELRLDEGKASSAKQRLKCSLQKFGERAFAKAVAVARLSQRFPAEFAEYSKLVTDLT 299
DB 204 PKLDELRLDEGKASSAKQRLKCSLQKFGERAFAKAVAVARLSQRFPAEFAEYSKLVTDLT 263
QY 300 KYHTECCGHDLLECADRDADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 359
DB 264 KYHTECCGHDLLECADRDADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 323
QY 360 ADLPSTLAADFVESKDVCKNYAEAKDVFGLMFLYEYARRHPDYSVLLRLAKTYETTLK 419
DB 324 ADLPSTLAADFVESKDVCKNYAEAKDVFGLMFLYEYARRHPDYSVLLRLAKTYETTLK 383
QY 420 CCAAADPHECYAKVPEFEPRLVEBPONLIKONCELFEOUGEYKFNALLVRYTKKVPQVS 479
DB 384 CCAAADPHECYAKVPEFEPRLVEBPONLIKONCELFEOUGEYKFNALLVRYTKKVPQVS 443
QY 480 TPTLVEVSNNLGVGSKCKHPEAKRMPCAEDYLSVNLQCLVLEKTPVSDRYTKCCTE 539
DB 444 TPTLVEVSNNLGVGSKCKHPEAKRMPCAEDYLSVNLQCLVLEKTPVSDRYTKCCTE 503
QY 540 SLVNRPPCFSALEVDETVYVPEFNAETFTFHADICTLSEKEROIKKQALVELVHKPKYA 599
DB 504 SLVNRPPCFSALEVDETVYVPEFNAETFTFHADICTLSEKEROIKKQALVELVHKPKYA 563
QY 600 TKEQLKAVMDPFAAFVEKCKCKADKETCPAEBSGKLVAAASQAALGI 645
DB 564 TKEQLKAVMDPFAAFVEKCKCKADKETCPAEBSGKLVAAASQAALGI 609

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RESULT 5
 Q56G89 HUMAN PRELIMINARY; PRT; 609 AA.

AC Q56G89;
 DT 10-MAY-2005 (TrEMBLrel. 30, Created)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
 DE Serum albumin.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominoidea;
 OC Homo.
 OC NCBI_TaxID=9606;

RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Li H., Zhang Y., Li X., Yang R., Tang S., Zhang M., Hua S.;
 RT "Homo sapiens serum albumin (HSA) cDNA sequence."
 RL Submitted (MAR-2005) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AY960291; AAX63425.1; -; mRNA.
 SQ SEQUENCE 609 AA; 69084 MW; 39B0CB8121A99C CRC64;

 Query Match 89.9%; Score 3073; DB 2; Length 609;
 Best Local Similarity 99.1%; Pred. No. 3.1e-186;
 Matches 581; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

 QY 60 RDAHKSEVAFRPFQDLGSENFKALVLIAPAYIQCCPFEDHVKLVNEVTEPAKTCVADESA 119
 DB 24 RDAHKSEVAFRPFQDLGSENFKALVLIAPAYIQCCPFEDHVKLVNEVTEPAKTCVADESA 83

 QY 120 ENCDKSLHTLFQDKLCTVATLRETYGEMADCCAKQBERNECFLOHKDNPMLPRLVRE 179
 DB 84 ENCDKSLHTLFQDKLCTVATLRETYGEMADCCAKQBERNECFLOHKDNPMLPRLVRE 143

 QY 180 VDVWCTAFHNEETFLKCYLYEIRRHPIYAPPELLFPARRYKAFTCCQADKAACTL 239
 DB 144 VDVWCTAFHNEETFLKCYLYEIRRHPIYAPPELLFPARRYKAFTCCQADKAACTL 203

 QY 240 PKDELRLDEBKASAKQRLKCAQLQKGERAFKAMAVARLSORPPKAFPAVSKLVTDLT 299
 DB 204 PKDELRLDEBKASAKQRLKCAQLQKGERAFKAMAVARLSORPPKAFPAVSKLVTDLT 263

 QY 300 KVTTECGGDLLECADRADLAKYICENODSISSKLKECCCKPLLEKSHCIAEVNDMP 359
 DB 264 KVTTECGGDLLECADRADLAKYICENODSISSKLKECCCKPLLEKSHCIAEVNDMP 323

 QY 360 ADLPSLAADFVESKDVCKNVAEAKDVFLGMFLYEARRHDPYGVLLRLAKTYETTLEK 419
 DB 324 ADLPSLAADFVESKDVCKNVAEAKDVFLGMFLYEARRHDPYGVLLRLAKTYETTLEK 383

 QY 420 CCAAADHHECYAKVDFEFKPLVEEPQNLIKONCELFQDLGEYKFNALLVRYTKVQVS 479
 DB 384 CCAAADHHECYAKVDFEFKPLVEEPQNLIKONCELFQDLGEYKFNALLVRYTKVQVS 443

 QY 480 TPTLVEYSRNLGKVGSKCCCHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYTKCTE 539
 DB 444 TPTLVEYSRNLGKVGSKCCCHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYTKCTE 503

 QY 540 SLVNRRCFSALEVDFTYVPKRFNAETFTFHADICTLSEKEROIKKOTALVELVYKHPKA 599
 DB 504 SLVNRRCFSALEVDFTYVPKRFNAETFTFHADICTLSEKEROIKKOTALVELVYKHPKA 563

 QY 600 TKQLKAVMDPFAAFVEKCKKADDKETCFABEGKKLVAAASQAALGL 645
 DB 564 TKQLKAVMDPFAAFVEKCKKADDKETCFABEGKKLVAAASQAALGL 609

 RESULT 6
 QSDOD7_HUMAN PRELIMINARY; PRT; 627 AA.
 ID QSDOD7_HUMAN PRELIMINARY; PRT; 627 AA.
 AC QSDOD7;
 DT 10-MAY-2005 (TREMblrel. 30, Created)
 DT 10-MAY-2005 (TREMblrel. 30, Last sequence update)
 DT 10-MAY-2005 (TREMblrel. 30, Last annotation update)
 DE ALB protein.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;
 OC Homo.
 NC NCBI_TaxID=9606;
 NX [1]
 RN NUCLEOTIDE SEQUENCE.
 RC TISSUE=Liver;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Straubeberg R.L.H., Grönberg L., Derge J.G.,
 RA Klausner R.D., Collins P.S., Wagner L., Shemen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldi M.F., Casavant T.L., Schetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Rana S.S., Loggiano N.A., Peters G.J., Abramson R.D., Mullan S.J.,
 RA Bosak S.A., McGowan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulik S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Hiley J., Helton E., Ketterman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butcherfield Y.S.N., Krzywinski M.I., Skalska U., Smalys D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Maria M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 and mouse cDNA sequences";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Liver;
 RA Straubeberg R.;
 RL Submitted (NOV-2002) to the EMBL/GenBank/DBJ databases.
 DR EMBL; BC039235; AAB39235.1; -; mRNA.
 SQ SEQUENCE 627 AA; 71704 MW; 271C97408D7EDD04 CRC64;

 Query Match 89.7%; Score 3066; DB 2; Length 627;
 Best Local Similarity 98.5%; Pred. No. 8.9e-186;
 Matches 577; Conservative 1; Mismatches 8; Indels 0; Gaps 0;

 QY 60 RDAHKSEVAFRPFQDLGSENFKALVLIAPAYIQCCPFEDHVKLVNEVTEPAKTCVADESA 119
 DB 24 RDAHKSEVAFRPFQDLGSENFKALVLIAPAYIQCCPFEDHVKLVNEVTEPAKTCVADESA 83

 QY 120 ENCDKSLHTLFQDKLCTVATLRETYGEMADCCAKQBERNECFLOHKDNPMLPRLVRE 179
 DB 84 ENCDKSLHTLFQDKLCTVATLRETYGEMADCCAKQBERNECFLOHKDNPMLPRLVRE 143

 QY 180 VDVWCTAFHNEETFLKCYLYEIRRHPIYAPPELLFPARRYKAFTCCQADKAACTL 239
 DB 144 VDVWCTAFHNEETFLKCYLYEIRRHPIYAPPELLFPARRYKAFTCCQADKAACTL 203

 QY 240 PKDELRLDEBKASAKQRLKCAQLQKGERAFKAMAVARLSORPPKAFPAVSKLVTDLT 299
 DB 204 PKDELRLDEBKASAKQRLKCAQLQKGERAFKAMAVARLSORPPKAFPAVSKLVTDLT 263

 QY 300 KVTTECGGDLLECADRADLAKYICENODSISSKLKECCCKPLLEKSHCIAEVNDMP 359
 DB 264 KVTTECGGDLLECADRADLAKYICENODSISSKLKECCCKPLLEKSHCIAEVNDMP 323

 QY 360 ADLPSLAADFVESKDVCKNVAEAKDVFLGMFLYEARRHDPYGVLLRLAKTYETTLEK 419
 DB 324 ADLPSLAADFVESKDVCKNVAEAKDVFLGMFLYEARRHDPYGVLLRLAKTYETTLEK 383

 QY 420 CCAAADHHECYAKVDFEFKPLVEEPQNLIKONCELFQDLGEYKFNALLVRYTKVQVS 479
 DB 384 CCAAADHHECYAKVDFEFKPLVEEPQNLIKONCELFQDLGEYKFNALLVRYTKVQVS 443

 QY 480 TPTLVEYSRNLGKVGSKCCCHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYTKCTE 539
 DB 444 TPTLVEYSRNLGKVGSKCCCHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYTKCTE 503

 QY 540 SLVNRRCFSALEVDFTYVPKRFNAETFTFHADICTLSEKEROIKKOTALVELVYKHPKA 599
 DB 504 SLVNRRCFSALEVDFTYVPKRFNAETFTFHADICTLSEKEROIKKOTALVELVYKHPKA 563

 QY 600 TKQLKAVMDPFAAFVEKCKKADDKETCFABEGKKLVAAASQAALGL 645
 DB 564 TKQLKAVMDPFAAFVEKCKKADDKETCFABEGKKLVAAASQAALGL 609

 RESULT 7
 ALBU_MACMU STANDARD; PRT; 600 AA.
 ID ALBU_MACMU STANDARD; PRT; 600 AA.

AC Q28522; 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Serum albumin precursor (Fragment).
 GN Name=ALB;
 OS Macaca mulatta (Rhesus macaque).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eumarchontia; Eularchontia; Primates; Catarrhini;
 OC Cercopithecoidea; Cercopithecinae; Macaca.
 NCBI_TaxID=9544;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=93211971; PubMed=8460152;
 RA Watkins S.A., Sakamoto Y., Madison J.M., Davis E.M., Smith D.G.,
 RA Daulton J., Putnam F.W.;
 RT "CDNA and protein sequence of polymorphic macaque albumins that differ
 in bilirubin binding.";
 RL Proc. Natl. Acad. Sci. U.S.A. 90:2409-2413 (1993).
 CC -1- FUNCTION: Serum albumin, the main protein of plasma, has a good
 binding capacity for water, Ca(2+), Na(+), K(+), fatty acids,
 hormones, bilirubin and drugs. Its main function is the regulation
 of the colloidal osmotic pressure of blood.
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: Plasma.
 CC -1- SIMILARITY: Belongs to the ALB/AFB/VDB family.
 CC -1- SIMILARITY: Contains 3 albumin domains.
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 between the Swiss Institute of Bioinformatics and the EMBL outstation -
 the European Bioinformatics Institute. There are no restrictions on its
 use as long as its content is in no way modified and this statement is not
 removed.
 CC EMBL: M90463; AAA3606.1; -; mRNA.
 DR PIR: A47391; A47391.
 DR HSP: P02768; 1E7B.
 DR SMR: Q28522; 19-600.
 DR InterPro: IPR001703; Alphafetoprot.
 DR InterPro: IPR000264; Serum albumin.
 DR Pfam: PF00273; Serum albumin; 3.
 DR PRINTS: PR00803; AFE0PROTEIN.
 DR PRINTS: PR00802; SERUMALBUMIN.
 DR ProDom: PD002486; Serum albumin; 1.
 DR SMART: SM00103; ALBUMIN; 3.
 DR PROSITE: PS00212; ALBUMIN; 3.
 KM Copper; lipid-binding; Metal-binding; Repeat; Signal.
 FT SIGNAL 10
 FT PROPEP 11
 FT CHAIN 17 600
 FT DOMAIN 17 197
 FT DOMAIN 204 389
 FT DOMAIN 396 587
 FT METAL 19 19
 FT BINDING 256 256
 FT DISULFID 69 78
 FT DISULFID 91 107
 FT DISULFID 106 117
 FT DISULFID 140 185
 FT DISULFID 184 193
 FT DISULFID 216 262
 FT DISULFID 261 269
 FT DISULFID 281 295
 FT DISULFID 294 305
 FT DISULFID 332 377
 FT DISULFID 376 385
 FT DISULFID 408 454
 FT DISULFID 453 464
 FT DISULFID 477 493
 FT DISULFID 492 503
 FT DISULFID 530 575
 FT DISULFID 574 583
 FT NON_TER 1

SQ SEQUENCE 600 AA; 67881 MW; E45C871A670E740B CRC64;
 Query Match 86.2%; Score 2947; DB 1; Length 600;
 Best Local Similarity 93.5%; Pred. No. 2,9e-178;
 Matches 546; Conservative 23; Mismatches 15; Indels 0; Gaps 0;
 QY 60 RDAHSEVAVHPRFDLGEENFKALVLIAPAOYIQCCPEFHVLYNVEVFATCVADSEA 119
 DB 16 RTHKSEVAVHPRFDLGEENFKALVLIAPAOYIQCCPEFHVLYNVEVFATCVADSEA 75
 QY 120 ENCDKSLHTLFGDKLCTVATLTREYGMADCCAKOPEPNEGFLGHKDNPLPLVLRPE 179
 DB 76 ENCDKSLHTLFGDKLCTVATLTREYGMADCCAKOPEPNEGFLGHKDNPLPLVLRPE 135
 QY 180 VDMCTAFHNDNETFLKXVLYEIRARHPFYAPPELLFFAKRYKAFTCCOADAACALL 239
 DB 136 VDMCTAFHNDNETFLKXVLYEIRARHPFYAPPELLFFAKRYKAFTCCOADAACALL 195
 QY 240 PKLDELDRDGKASSAKORLKASLQFGSRAKAMVAALSQRPKAEFAVSKLVTDLT 299
 DB 196 PKLDELDRDGKASSAKORLKASLQFGSRAKAMVAALSQRPKAEFAVSKLVTDLT 255
 QY 300 KYHTECGHGDLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 359
 DB 256 KYHTECGHGDLECADRADLAKYICENODSISSKLKECCERPLEKSHCIAEVENDEMP 315
 QY 360 ADLPISLAADFVSKDVCXNYAARADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 419
 DB 316 ADLPISLAADFVSKDVCXNYAARADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 375
 QY 420 CCNADPHHCYAKVPBPPIYEEPNLIKONCELEPOUGEYKFNQALLVRYTKVPOVS 479
 DB 376 CCNADPHHCYAKVPBPPIYEEPNLIKONCELEPOUGEYKFNQALLVRYTKVPOVS 435
 QY 480 TPTLVEVSRLNGVSKCKCHPEAKRMPCAEDYLSVNLQCLVLEKTPVSDVTKCTE 539
 DB 436 TPTLVEVSRLNGVSKCKCHPEAKRMPCAEDYLSVNLQCLVLEKTPVSDVTKCTE 495
 QY 540 SLVNRPRPSALEVDETVYPKEFNAETFTFHADICTLSEKEROIKQYALVELVKRPPA 599
 DB 496 SLVNRPRPSALEVDETVYPKEFNAETFTFHADICTLSEKEROIKQYALVELVKRPPA 555
 QY 600 TKEQLKAVNDPRAFPKCCCKADDKETCPAEGSKLVAAISOAL 643
 DB 556 TKEQLKAVNDPRAFPKCCCKADDKETCPAEGSKLVAAISOAL 599
 RESULT 8
 ALBU_FELCA STANDARD; PRT; 608 AA.
 ID ALBU_FELCA
 AC P49064; Q7YSG3;
 DT 01-FEB-1996 (Rel. 33, Created)
 DT 01-FEB-1996 (Rel. 33, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Serum albumin precursor (Allergen Fel d 2).
 GN Name=ALB;
 OS Felis silvestris catus (Cat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
 OC Felinae; Felis.
 NCBI_TaxID=9685;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=96194824; PubMed=8647469; DOI=10.1016/0378-1119(95)00851-9;
 RA Hilger C., Gridioni F., Kohen M., Hertges F.;
 RT "Sequence of the gene encoding cat (Felis domesticus) serum albumin.";
 RL Gene 169:295-296 (1996).
 RN [2]
 RP NUCLEOTIDE SEQUENCE OF 25-608.
 CC TISSUE=Liver;
 RA Reininger R., Swoboda I., Bohle B., Hauswirth A.W., Valent P.,
 RA Rumpold H., Valenta R., Spitzauer S.;
 RT "Escherichia coli expression and purification of recombinant cat

albumin: Igb recognition, induction of basophil activation and
 RT lymphoproliferative responses in atopic patients."
 RL Submitted (MAR-2002) to the EMBL/GenBank/DBJ databases.
 CC - FUNCTION: Serum albumin, the main protein of plasma, has a good
 CC binding capacity for water, Ca(2+), Na(+), K(+), fatty acids,
 CC hormones, bilirubin and drugs. Its main function is the regulation
 CC of the colloidal osmotic pressure of blood.
 CC - SUBCELLULAR LOCATION: Secreted.
 CC - TISSUE SPECIFICITY: Plasma.
 CC - ALLERGEN: Causes an allergic reaction in human.
 CC - SIMILARITY: Belongs to the ALB/AF/VDB family.
 CC - SIMILARITY: Contains 3 albumin domains.
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC EMBL: X84842; CA59279.1; -; mRNA.
 CC EMBL: AJ487677; CAD32275.1; -; mRNA.
 CC PIR: JC460; S57632.
 CC HSSP: P02766; 1E7B.
 CC SMR: P49064; 26-608.
 CC InterPro: IPR001703; Alphafetoprot.
 CC InterPro: IPR000264; Serum albumin.
 CC Pfam: PF00273; Serum_albumin_3.
 CC PRINTS: PR00803; AFETOPROTEIN.
 CC PRINTS: PR00802; SERUMALBUMIN.
 CC ProDom: PD002486; Serum_albumin_1.
 CC SMART: SM00103; ALBUMIN; 3.
 CC PROSITE: PS00212; ALBUMIN; 3.
 KW Allergen; Copper; Lipid-binding; Metal-binding; Repeat; Signal.
 FT SIGNAL 1 18
 FT PROPEP 19 24 By similarity.
 FT CHAIN 25 608 By similarity.
 FT DOMAIN 25 205 Serum albumin.
 FT DOMAIN 212 397 Albumin 1.
 FT DOMAIN 404 595 Albumin 2.
 FT METAL 27 27 Albumin 3.
 FT METAL 27 27 Copper.
 FT DISULFID 77 86 By similarity.
 FT DISULFID 99 115 By similarity.
 FT DISULFID 114 125 By similarity.
 FT DISULFID 148 193 By similarity.
 FT DISULFID 192 201 By similarity.
 FT DISULFID 224 270 By similarity.
 FT DISULFID 269 277 By similarity.
 FT DISULFID 289 303 By similarity.
 FT DISULFID 302 313 By similarity.
 FT DISULFID 340 385 By similarity.
 FT DISULFID 384 393 By similarity.
 FT DISULFID 416 462 By similarity.
 FT DISULFID 461 472 By similarity.
 FT DISULFID 485 501 By similarity.
 FT DISULFID 500 511 By similarity.
 FT DISULFID 538 583 By similarity.
 FT DISULFID 582 591 By similarity.
 FT CONFLICT 75 75 K -> N (in Ref. 2).
 FT CONFLICT 94 94 L -> F (in Ref. 2).
 FT CONFLICT 186 186 K -> R (in Ref. 2).
 FT CONFLICT 251 251 E -> D (in Ref. 2).
 FT CONFLICT 282 282 A -> E (in Ref. 2).
 FT CONFLICT 331 331 V -> A (in Ref. 2).
 SQ SEQUENCE 608 AA; 68659 MW; 07E629CAC5F60E5F CRC64;

Query Match 76.9%; Score 2627; DB 1; Length 608;
 Best Local Similarity 80.1%; Pred. No. 5.4e-158;
 Matches 483; Conservative 53; Mismatches 57; Indels 10; Gaps 1;

QY 41 SSYLEGQAAKEFAMLVKGRDAKSEVAHREFKDIAGEENFKALVLIAPQYIQCCPFEDHY 100
 DB 15 SAYSRG-----VTRRAHQSEIARHFNDDGEEHFRGLVVAFSQYLQCCPFEDHY 64

QY 101 KLVEVTEFAKTCVADSAENCDKSHHTLFGDKLCTVATLTRETYGMADCCAKOEPERN 160
 DB 65 KLVNTEFAKGVADQASANCEKSLHEHLDGLCTVASLRKYGMADCCCKEKEPERNE 124
 QY 161 CFIQHODDNPULPRLVREVDVWCTAFHNEEFPLKKYVETARHPYVAPBLFFPAR 220
 DB 125 CFIQHODDNPQOLVTPPADAMCTAFHNEEQFFLGKYTEIARRHPYVAPBLFYAB 184
 QY 221 YKAFTECCOADKACALPKLDLDEGKASAKORLTCASIQKGEPAFKAMAVARLS 280
 DB 185 YKVFTECCBAPKACLPKPKDALREKYLASAKERLKCASIQKGEPAFKAMAVARLS 244
 QY 281 QRPKAEFAEVSRLVDTLTKVTECCGDLLECCADRADLAKYICENQDISSKICECE 340
 DB 245 QRPKAEFAEISGLVDTLAKIHECCGDLLECCADRADLAKYICENQDISSKICECG 304
 QY 341 KPLLEKSHCIAEYENDEMPADPLSLAADVYESDVCKAYAEAKDVTLGMFLYEXARRHD 400
 DB 305 KPLLEKSHCISEVERBELPADLPPLAVDVEDEKVCNKOQKADVFLGTFLYESRRHB 364
 QY 401 YSVVLLRLAKYETTLERKCAADPHEGCAKVFDEKFLVEBPOLIKONCELFPOLGE 460
 DB 365 YSVSLRLAKGYEATLERKCAITDPPACTAHVFDEKFLVEBPOLVKTNCCLPEKGE 424
 QY 461 YKFNALLVRYTKKVPQVSTPLVVEVSRNLGKVSCKCKHPEAKMPCADLYLVVNLQ 520
 DB 425 YGFQNALVRYTKKVPQVSTPLVVEVSRNLGKVSCKCKHPEAKMPCADLYLVVNLQ 484
 QY 521 CVLHEKTPVSDRYTKCTESLVNRRCFGSALBYDETYVYKPEPALEFTTHADICTISEK 580
 DB 485 CVLHEKTPVSEVRYTKCTESLVNRRCFGSALQVDETYVYKPEPALEFTTHADICTISEK 544
 QY 581 ROIKXOTALVELYKHPRKATKBOLEKAVMDPFAFVFECKCAADKETCFPAEKGKLVAA 640
 DB 545 KOIKXOSALVELLKHPRKATKBOLEKAVMDPFGSFVCKCAADKETCFPAEKGKLVAA 604
 QY 641 AAL 643
 DB 605 AAL 607

RESULT 9
 ID ALBU CANFA STANDARD; PRT; 608 AA.
 AC P49822; O77705; Q9RSZ4;
 DT 01-OCT-1996 (Rel. 34, Created)
 DT 01-FEB-2005 (Rel. 46, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Serum albumin precursor (Allergen Can f 3).
 GN Name=ALB;
 OS Canis familiaris (Dog).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
 OC Canis.
 OX NCBI_TaxID=9615;
 RN [1]
 RP NUCLEOTIDE SEQUENCE [mRNA].
 RC STRAIN=Beagle; TISSUE=Liver;
 RA Hliger C.;
 RL Submitted (MAR-1999) to the EMBL/GenBank/DBJ databases.
 [2]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Liver.
 RX MEDLINE=20148667; PubMed=10669848; DOI=10.1016/S0091-6749(00)90077-0;
 RA Pandaitan B., Swoboda I., Brandesky-Pichler F., Rumpold H.,
 RA Valenta R., Spitzauer S.;
 RT "Escherichia coli expression and purification of recombinant dog
 RT albumin, a cross-reactive animal allergen."
 RL J Allergy Clin. Immunol. 105:279-285(2000).
 RN [3]
 RP NUCLEOTIDE SEQUENCE [mRNA].
 RC STRAIN=Beagle; TISSUE=Liver;
 RA Miyake M., Okazaki M., Iwabuchi S.;

RT "Isolation of a cDNA encoding canine serum albumin.";
RL Submitted (Aug-2002) to the EMBL/GenBank/DBJ databases.
RN [4]
RP PROTEIN SEQUENCE OF 25-48.
RA MEDLINE=75011422; PubMed=4414013;
RX Dixon J.W., Sarkar B.;
RT "Isolation, amino acid sequence and copper(II)-binding properties of
RT peptide (1-24) of dog serum albumin.";
RL J. Biol. Chem. 249:5872-5877(1974).
RN [5]
RP PROTEIN SEQUENCE OF 25-38.
RC TISSUE=Heart;
RX MEDLINE=98163340; PubMed=9504812;
RA Dunn M.J., Corbett J.M., Wheeler C.H.;
RT "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT dog heart proteins.";
RL Electrophoresis 18:2795-2802(1997).
RN [6]
RP NUCLEOTIDE SEQUENCE OF 215-478.
RC TISSUE=Salivary gland;
RX MEDLINE=94201492; PubMed=7512102;
RA Spitauer S., Schweiger C., Spert W.R., Pandjatan B., Valent P.,
RT Moehl S., Eder C., Schneider O., Krafc D., Rumpold H.;
RT "Molecular characterization of dog albumin as a cross-reactive
RT allergen.";
RL J. Allergy Clin. Immunol. 93:614-627(1994).
CC -1- FUNCTION: Serum albumin, the main protein of plasma, has a good
CC binding capacity for water, Ca(2+), Na(+), K(+), fatty acids,
CC hormones, bilirubin and drugs. Its main function is the regulation
CC of the colloidal osmotic pressure of blood.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: Plasma.
CC -1- ALLERGEN: Causes an allergic reaction in human.
CC -1- SIMILARITY: Belongs to the Alb/AF/VPB family.
CC -1- SIMILARITY: Contains 3 albumin domains.
CC -----
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; AJ133489; CAB64867.1; -; mRNA.
DR EMBL; Y17737; CAAT6841.1; -; mRNA.
DR EMBL; AB090854; BAC10663.1; -; mRNA.
DR EMBL; S72946; AAB30434.1; -; mRNA.
DR HSSP; P02768; 1E7B.
DR SMR; P49822; 26-607.
DR HSC-2DPAGE; P49822; DOG.
DR Ensemble; ENSCARG0000003016; Canis familiaris.
DR InterPro; IPR000264; Serum albumin.
DR Pfam; PF00273; Serum albumin. 3.
DR PRINTS; PR00802; SERUMALBUMIN.
DR ProDom; PD002486; Serum albumin. 1.
DR SMART; SM00103; ALBUMIN. 3.
DR PROSITE; PS00212; ALBUMIN. 3.
KW Allergen; Copper; Direct protein sequencing; Lipid-binding;
KW Metal-binding; Repeat; Signal.
FT SIGNAL 1 18 Potential.
FT PROPEP 19 24 Serum albumin.
FT CHAIN 25 608 Albumin 1.
FT DOMAIN 25 205 Albumin 1.
FT DOMAIN 212 397 Albumin 2.
FT DOMAIN 404 595 Albumin 3.
FT METAL 27 27 Copper (By similarity).
FT DISULFID 77 86 By similarity.
FT DISULFID 99 115 By similarity.
FT DISULFID 114 125 By similarity.
FT DISULFID 148 193 By similarity.
FT DISULFID 192 201 By similarity.
FT DISULFID 224 270 By similarity.
FT DISULFID 269 277 By similarity.
FT DISULFID 289 303 By similarity.

FT DISULFID 302 313 By similarity.
FT DISULFID 340 385 By similarity.
FT DISULFID 384 393 By similarity.
FT DISULFID 416 462 By similarity.
FT DISULFID 461 472 By similarity.
FT DISULFID 485 501 By similarity.
FT DISULFID 500 511 By similarity.
FT DISULFID 538 583 By similarity.
FT DISULFID 582 591 By similarity.
FT CONFLICT 1 26 MKWTFISLFFSSAYSGRLVRRRA -> MDT (in
Ref. 2).
FT CONFLICT 146 146 A -> R (in Ref. 2).
FT CONFLICT 206 206 I -> T (in Ref. 2).
FT CONFLICT 349 349 V -> A (in Ref. 2).
FT CONFLICT 359 359 A -> S (in Ref. 2 and 6).
FT CONFLICT 448 448 V -> VV (in Ref. 6).
FT CONFLICT 474 474 E -> D (in Ref. 2 and 6).
SQ SEQUENCE 608 AA; 68605 MW; 3DB012FF7C979CF3 CRC64;

Query Match 75.3%; Score 2574; DB 1; Length 608;

Best Local Similarity 78.4%; Pred. No. 1.2e-154;

Matches 473; Conservative 57; Mismatches 63; Indels 10; Gaps 2;

QY 41 SSYLGGQAKKERIAMLVKGRDAHKSEVARRFQDLGEENPKALVLLAFAGQYLQCCPEEDHV 100
DB 15 SAYSRG-----LVR-REAYKSBIAHYNDLDEBHRGLVLAFFSOLQCCPEEDHV 64
QY 101 KLVNEYTEPAKTCVADSEANCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNE 160
DB 65 KLAKEVTEPAKCAABESANCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNE 124
QY 161 CFLQHKDNDPNIPLVRPEVDVMTCAFDHNESTFLKYLVEIARRHPYFYADELLFPAKR 220
DB 125 CFLAHKDDNPFPPLVAPPEPDALCAAFQDNEQLFGKLYLEIARRHPYFYADELLFYAQQ 184
QY 221 YKAAFTFECQADAKAACILPKLDELDEGKASASAKORLTKASLOKGERAFAMAVARLS 280
DB 185 YGVGFAPFECQADAKAACILPKLDELDEGKASASAKORLTKASLOKGERAFAMAVARLS 244
QY 281 QRPKAEFAVSEKLVTDLTQVTECCGDLLECADDRAIDLAKYICENODSISKLKECCE 340
DB 245 QRPKADPAEISKVTDLTKVKECCHDLLECADDRAIDLAKYICENODSISKLKECCD 304
QY 341 KPLLEKSHCIAEVENDEMPADLPISLAADFVESKDYCKYNAEAKDYFLGMFLYIARRHPD 400
DB 305 KPLLEKSHCIAEVENDEMPADLPISLAADFVESKDYCKYNAEAKDYFLGMFLYIARRHPD 364
QY 401 YGVVLLRLAKTYETTLKECCAAADPHCEYAVPDEPKLYVEPONLTKONCELPOLGE 460
DB 365 YGVVLLRLAKTYETTLKECCAAADPHCEYAVPDEPKLYVEPONLTKONCELPOLGE 424
QY 461 YKFNALVRYTKKVPQVSTPTLVEYSRMIGVSKCKGHPAKMPCAEDYLVVNLQ 520
DB 425 YGFQNALVRYTKKVPQVSTPTLVEYSRMIGVSKCKGHPAKMPCAEDYLVVNLQ 484
QY 521 CVLHEKTPVSDRYTKCCTESLVNRRPCFSALAEVDETVYKFNALFTFHADICTLSEK 580
DB 485 CVLHEKTPVSDRYTKCCTESLVNRRPCFSALAEVDETVYKFNALFTFHADICTLSEK 544
QY 581 RQIKQTALVELVKKPKATKQGLKAVMDPAFPEKCKKADDEKCFABEKKLVAAAO 640
DB 545 RQIKQTALVELVKKPKATKQGLKAVMDPAFPEKCKKADDEKCFABEKKLVAAAO 604
QY 641 AAL 643
DB 605 AAL 607

RESULT 10
095VB7_SCHEMA PRELIMINARY; PRT; 608 AA.
AC 095VB7;
DC 01-DEC-2001 (TrEMBLrel. 19, Created)

```

DT 01-DEC-2001 (Tremblrel. 19, last sequence update)
DT .01-MAR-2004 (Tremblrel. 26, last annotation update)
DE Albumin.
OS Schistosoma mansoni (Blood fluke).
OC Eukaryota; Metazoa; Platyhelminthes; Trematoda; Digenea; Strigeiida;
OC Schistosomatidae; Schistosomatidae; Schistosoma.
OX NCBI_TaxID=6183;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Oseman A., Asahi H., Staecker M.J., Loverde P.T.;
RL Submitted (SEP-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF418550; AAL08579.1; -; mRNA.
DR HSSP; P02768; 1HK1.
DR SMR; Q95VE7; 26-608.
DR GO; GO:0005615; C:extracellular space; IEA.
DR GO; GO:0005386; F:carrier activity; IEA.
DR GO; GO:0008289; F:lipid binding; IEA.
DR GO; GO:0006810; P:transport; IEA.
DR InterPro; IPR001703; Alphafetoprot.
DR InterPro; IPR000264; Serum albumin.
DR Pfam; PF00273; Serum_albumin; 3.
DR PRINTS; PRO0803; AFETOPROTEIN.
DR PRINTS; PRO0802; SERUMALBUMIN.
DR SMART; SM00103; ALBUMIN; 3.
DR PROSITE; PS00212; ALBUMIN; 2.
SQ SEQUENCE 608 AA; 68225 MW; E5EAB28E1C66E54 CRC64;

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OY			41	SYLLEGOAAKETIAMLVKGKRDHAKSVARFDLGSENRKAUVT.IAPAOYLQOCPEPDHY	100
Dd			15	SAVFEG-----VLRRDTHRSSEIARFENDLGRKHFGALVAFSOYLQCCPEDHV	64
OY			101	KLVNEYTEPAKCVADDESANCDKS.LHTFLPGDLCAVATLRETYGMADCCAQEPERNE	160
Dd			65	KLVNEYTEPAKCAADESABENCDKSLHTFLPGDLCTVATLTRAYGELADCCBQEPPERNE	124
OY			161	CFLQHKNDDNNPRLVRPEVDVWCTAFHDNSETFLKKLYEILARRHPYFAPELLFPKR	220
Dd			125	CFLTKHKDDHNP.PKL-KRPEPDAQCAFQEDPDFLKYILEVARRHYPFYGPPELLFPAEE	183
OY			221	YQAATEPCECQAADKAACLLPKLDLDEBKASANKQLKCSIQXGEPAFKMAVAARLS	280
Dd			184	YAADFECCPADKAGCLLPKDALKERRILLSSAKERLKCSSFOKEBPFKMSVAARLS	243
OY			281	ORFPKAEFAEVSGTLVTDLTKVHTESCCHGLECADRADLAKYICENODISSKLEKCE	340
Dd			244	QRFPPADPFVEVSKLYTDLTKVHKESCHGLECADRADLTKIKICHQDSISGLTAACD	303
OY			341	KEPLEKSHCIAEVENDEMPADLPESLADPFVESNDVCNTAEAADVPLGMFLYEVARHPD	400
Dd			304	KEPLQGSHCIAEVEDDELPSDLPALAADFEDKEIKCHKYMDADOVFLGTPLYEYSRRHPD	363
OY			401	YSVTVLLIRLAKTYETTLERKCCAADHECKAKYFDEFKPLVEEPOLIKONCELFDOLG	460
Dd			364	YSVSLLIRLAKTYEATLERKCCAADRPACVATFDFPLVEBPKSLVKKNCDLFEVGE	423
OY			461	YEFONALLRYRKRVQVSTPTPLVEYSRNIGKVGSCCKHPBAKMRPCAEDYLSVLANOL	520
Dd			424	YFONALLIRYTKKAPQVSTPTPLVEIGRTIGKVGRCKCLPBSEBRPCSNHLATLNRL	483
OY			521	CVLHETKPYSDRYKCTCESLNVNRCPFSAL.EVDETYVPKEFNAESTFTFHADICTLSEKE	580
Dd			484	CVLHETTPVSEKITKCTDSLERRCPFSALTELDEGIIPREFAEAPTTFHADICTLPEDE	543
OY			581	ROIKQTALVELYKHKPKATKEOLKAVMDDPAAFVECKCAADKKEKTPFAEBGGKLVVASQ	640
Dd			544	KOIKQSALAELIVKHKPKATKEOLKTVLGNFSAFVAKCGAABDKKCAFBEGPKLVVASQ	603
OY			641	AAL 643	
Dd			604	LAL 606	
RESULT 12					
ALBU HORSE					
ID	ALBU_HORSE	STANDARD;	PRT;	607 AA.	
AC	P35747;				
DT	01-JUN-1994 (Rel. 29, Created)				
DT	01-JUN-1994 (Rel. 29, Last sequence update)				
DT	10-MAY-2005 (Rel. 47, Last annotation update)				
DE	Serum albumin precursor (Allergen Equ c 3).				
GN	Name=ALB;				
OS	Equus caballus (Horse).				
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;				
OC	Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.				
OX	NCBI_TaxId=9796;				
RN	[1]				
RP	NUCLEOTIDE SEQUENCE, AND X-RAY CRYSTALLOGRAPHY (2.7 ANGSTROMS).				
RC	TISSUE=Liver;				
RX	MEDLINE=93345495; PubMed=8344282;				
RA	Ho J.X., Holowachuk E.W., Norton E.J., Twigg P.D., Carter D.C.;				
RT	"X-ray and primary structure of horse serum albumin (Equus caballus)				
RL	at 0.27-nm resolution.";				
Bur. J. Biochem.	215:205-212(1993).				
CC	- FUNCTION: Serum albumin, the main protein of plasma, has a good				
CC	binding capacity for water, Ca(2+), Na(+), K(+), fatty acids,				
CC	hormones, bilirubin and drugs. Its main function is the regulation				
CC	of the colloidal osmotic pressure of blood.				
CC	- SUBCELLULAR LOCATION: Secreted.				
CC	- TISSUE SPECIFICITY: Plasma.				
CC	- ALLERGEN: Causes an allergic reaction in human. Binds to IgG.				

[illegible]


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QY 401 YSVVLLRLAKTYETTLKCCAAADPHCAKVPDEFKPIVEBPONLIXONCELPEDLGE 460
DB 364 YSVSLLRIRAKTYEATLEKCCAEADPPACRTVPDPTPLVEBKSLVKNKCDLFEVGE 423
QY 461 YKRONALLVYTKKVPQVSTPTLVEVSRNIGKVSCKCKHPKAPCAEDYLSVVLNOL 520
DB 424 YDQONALIVYTTKAPQVSTPTLVEIGRTIGKVSRCCKLPESRRLPCSNHLALANRL 483
QY 521 CVLHEKTPVSDRYTKCTESIWNRRPCFSALAEVDETYVYKFNATPTFHADICTLSEKE 580
DB 484 CVLHEKTPVSEKTIKCTCDSLAERRPCFSALAEDEGVYKPKFKAETPTFHADICTLPEDE 543
QY 581 KQIKKQALVLYVHKRKAATPEOUKAMDDPAAPVEKCCADDEKTCFAEKGKLVASQ 640
DB 544 KQIKKQALVLYVHKRKAATPEOUKAMDDPAAPVEKCCADDEKTCFAEKGKLVASQ 603
QY 641 AAL 643
DB 604 LAL 606

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RESULT 13

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QSEB48 MICFO
ID QSEB48 MICFO PRELIMINARY; PRT; 608 AA.
AC QSEB48;
DT 10-MAY-2005 (TREMBlrel. 30, Created)
DT 10-MAY-2005 (TREMBlrel. 30, Last sequence update)
DT 10-MAY-2005 (TREMBlrel. 30, Last annotation update)
DE Albumin.
OS Microtus fortis calamorum.
OC Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Arvicolinae; Microtus.
OX NCBI_TaxID=311220;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RA Hu W.-X., Wu G.-J., Qin Z.-Q., Luo S.-Q.;
RT "Albumin gene of Microtus fortis calamorum liver."
RL Submitted (JAN-2005) to the EMBL/GenBank/DBJ databases.
DR EMBL: AY885265; AAM79113.1; -; mRNA.
DR InterPro: IPR001703; Alphafetoprot.
DR InterPro: IPR00264; Serum_albumin.
DR Pfam: PF00273; Serum_albumin; 3.
DR PRINTS: PRO0803; AFETOPROTEIN.
DR PRINTS: PRO0802; SERUMALBUMIN.
DR PRODOM: PD002486; Serum_albumin; 1.
DR SMART: SM00103; ALBUMIN; 3.
DR PROSITE: PS00212; ALBUMIN; 2.
SQ SEQUENCE 608 AA; 68308 MW; B04A061339494D3F CRC64;

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Query March 72.3%; Score 2469; DB 2; Length 608;
Best Local Similarity 76.2%; Pred. No. 5.5e-148;
Matches 445; Conservative 65; Mismatches 74; Indels 0; Gaps 0;
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DB 24 RDAKSEVAAHRYNDLGEKYLFGVLITPAQHLQCKPEYEHKLVNVEYDFAKACADESA 83
QY 120 ENCKSLHTLFGDKLCTVATIRETTYGEMADCCAOEPERNCFLOHODNNRLRLVPE 179
DB 84 ENCKSLHTLFGDKLCAIPNLGDNVAEVAECACAOEPERNCFLOHODNNRLRLVPE 143
QY 180 VDWNCIAFHDEEFTFLKYLVEIARBPYFAPBELIFAKRYKAAFTCCQADAKAACL 239
DB 144 AEVNCISQENPASPMSGHYLIANVARRHRYFAPELIIYAEKQSAIMTECCAEADKACIG 203
QY 240 PKLDELARDEGKASSAKQRLKCAILOKFGERRAFKAMAVARISQRPKAEFAVSKLVDTLT 299
DB 204 PKLDELARDEGKASSAKQRLKCAILOKFGERRAFKAMAVARISQRPKAEFAVSKLVDTLT 263
QY 300 KVNTECCGDLLECCADPADLAKYICENQDSISSLQKXCKRPLEKSHCIAEYNDMP 359

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DB 264 KTVQECCHDILLECCADDRLELAKYMCNDQATISSKLTHTCCDDRYVLOKACLAEVDHMP 323
QY 360 ADLPISLAAPVPSKQVKNVAAKQVYLGMPLEYVARBPDSVVLNLAKTETTLK 419
DB 324 ADLPISLAAPVPSKQVKNVAAKQVYLGMPLEYVARBPDSVVLNLAKTETTLK 383
QY 420 CCAADPHCAKVPQVSTPTLVEVSRNIGKVSCKCKHPKAPCAEDYLSVVLNOL 479
DB 384 CCAADPHCAKVPQVSTPTLVEVSRNIGKVSCKCKHPKAPCAEDYLSVVLNOL 443
QY 480 TPTLVEVSRNIGKVSCKCKHPKAPCAEDYLSVVLNOLCYLHEKTPVSDRYTKCTGE 539
DB 444 TPTLVEVSRNIGKVSCKCKHPKAPCAEDYLSVVLNOLCYLHEKTPVSDRYTKCTGE 503
QY 540 SLVNRPPCSALAEVDETYVYKFNATPTFHADICTLSEKROIKQTLVLEVKRKA 599
DB 504 SLVNRPPCSALAEVDETYVYKFNATPTFHADICTLSEKROIKQTLVLEVKRKA 563
QY 600 TKEQLKAVMDDEFAAFVEKCCADDEKTCFAEKGKLVASQAL 643
DB 564 TKEQLKAVMDDEFAAFVEKCCADDEKTCFAEKGKLVASQAL 607

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RESULT 14

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ALBU RABIT
ID ALBU RABIT STANDARD; PRT; 608 AA.
AC P49065;
DT 01-FEB-1996 (Rel. 33, Created)
DT 29-MAR-2004 (Rel. 43, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Serum albumin precursor.
GN Name=ALB.
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=New Zealand white; TISSUE=Liver;
RX MEDLINE=97275135; PubMed=9129029;
RA Syed S., Schnuyler P.D., Kulczycky M., Sheffield W.P.;
RT "Potent antithrombin activity and delayed clearance from the
circulation characterize recombinant hirudin genetically fused to
albumin."
RL Blood 89:3243-3252(1997).
RN [2]
RP SEQUENCE REVISION TO 322-323 AND 506-507.
RA Sheffield W.P.;
RL Submitted (APR-2003) to the EMBL/GenBank/DBJ databases.
CC -1- FUNCTION: Serum albumin, the main protein of plasma, has a good
binding capacity for water, Ca(2+), Na(+), K(+), fatty acids,
hormones, bilirubin and drugs. Its main function is the regulation
of the colloidal osmotic pressure of blood.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: Plasma.
CC -1- SIMILARITY: Belongs to the ALB/AFI/VDB family.
CC -1- SIMILARITY: Contains 3 albumin domains.

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CC This Swiss-Prot entry is copyright. It is produced through a collaboration
between the Swiss Institute of Bioinformatics and the EMBL outstation -
the European Bioinformatics Institute. There are no restrictions on its
use as long as its content is in no way modified and this statement is not
removed.
CC EMBL: U18344; AAB58347.2; -; mRNA.
CC HSP: P02768; 1E7B.
CC SMK: P49065; 26-608.
CC InterPro: IPR001703; Alphafetoprot.
CC InterPro: IPR00264; Serum_albumin.
CC Pfam: PF00273; Serum_albumin; 3.
CC PRINTS: PRO0803; AFETOPROTEIN.
DR

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Fri Apr 21 09:28:25 2006

us-10-775-180-447_copy_30_674.rup

Page 13

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Job time : 172.412 secs

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GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: April 19, 2006, 12:09:12 ; Search time 40.7706 Seconds
(without alignments)
1307.948 Million cell updates/sec

Title: US-10-775-180-447_COPY_30_674
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Perfect score: 1 HGEFTSDVSSYLEGQAAR.....TCFAEGKTLVNASQALGL 645
Sequence:

Scoring table: BIOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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2: /cgn2_6/ptodata/1/1aa/6_COMB.pep:*
3: /cgn2_6/ptodata/1/1aa/H_COMB.pep:*
4: /cgn2_6/ptodata/1/1aa/PTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/1aa/RE_COMB.pep:*
6: /cgn2_6/ptodata/1/1aa/backfile1.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3112.5	91.1	787	1 US-08-256-938-4	Sequence 4, Appli
2	3112.5	91.1	787	1 US-08-797-689-16	Sequence 16, Appl
3	3112.5	91.1	787	2 US-09-984-186-16	Sequence 16, Appl
4	3108	91.0	609	2 US-09-976-594-977	Sequence 977, App
5	3108	91.0	609	2 US-09-919-039-370	Sequence 370, App
6	3108	91.0	610	1 US-08-797-689-2	Sequence 2, Appli
7	3108	91.0	610	2 US-09-984-186-2	Sequence 2, Appli
8	3108	91.0	622	2 US-09-949-016-11170	Sequence 11170, A
9	3108	91.0	783	1 US-08-256-938-2	Sequence 2, Appli
10	3104	90.8	609	1 US-08-222-619-3	Sequence 3, Appli
11	3104	90.8	609	1 US-08-433-037-4	Sequence 4, Appli
12	3104	90.8	609	2 US-08-897-956A-2	Sequence 2, Appli
13	3104	90.8	609	4 PCT-US95-04075-3	Sequence 3, Appli
14	3103.5	90.8	978	1 US-08-897-956A-3	Sequence 3, Appli
15	3103	90.8	585	1 US-08-153-799-14	Sequence 14, Appli
16	3103	90.8	585	1 US-08-702-572-2	Sequence 2, Appli
17	3103	90.8	585	2 US-08-766-746-2	Sequence 2, Appli
18	3103	90.8	585	2 US-09-833-118A-18	Sequence 18, Appli
19	3103	90.8	585	2 US-09-833-929A-18	Sequence 18, Appli
20	3103	90.8	585	2 US-09-833-111A-18	Sequence 18, Appli
21	3093	90.5	585	1 US-08-448-196A-3	Sequence 3, Appli
22	3093	90.5	585	1 US-08-984-176-1	Sequence 1, Appli
23	2458.5	71.9	583	1 US-08-448-196A-5	Sequence 5, Appli
24	2450.5	71.7	583	1 US-08-448-196A-4	Sequence 4, Appli
25	2432.5	71.2	583	2 US-10-360-101-200	Sequence 200, App
26	2432.5	71.2	583	1 US-08-448-196A-6	Sequence 6, Appli
27	2426	71.0	584	1 US-08-448-196A-7	Sequence 7, Appli

28	2393.5	70.0	604	2 US-10-045-170A-1	Sequence 1, Appli
29	2389	69.9	582	1 US-08-134-638-1	Sequence 1, Appli
30	1256.5	36.8	609	1 US-08-222-619-4	Sequence 4, Appli
31	1256.5	36.8	609	2 US-09-976-594-456	Sequence 456, App
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33	1256.5	36.8	612	2 US-09-949-016-11201	Sequence 11201, A
34	1213.5	35.5	609	2 US-09-186-949A-2	Sequence 2, Appli
35	1206.5	35.3	590	1 US-08-377-309-2	Sequence 2, Appli
36	1206.5	35.3	590	2 US-09-186-723-2	Sequence 2, Appli
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38	1206.5	35.3	590	2 US-09-186-949A-3	Sequence 3, Appli
39	1206.5	35.3	590	2 US-08-758-757-2	Sequence 2, Appli
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41	1206.5	35.3	590	2 US-10-115-701A-2	Sequence 2, Appli
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44	1206.5	35.3	590	4 PCT-US96-00996-5	Sequence 5, Appli
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ALIGNMENTS

RESULT 1
US-08-256-938-4
; Sequence 4, Application US/08256938
; Patent No. 565863
; GENERAL INFORMATION:
; APPLICANT: Yeh, Patrice
; TITLE OF INVENTION: NEW POLYPEPTIDES HAVING GRANULOCYTE
; TITLE OF INVENTION: COLOR STIMULATING ACTIVITY, PREPARATION THEREOF AND
; TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTAINING SAID POLYPEPTIDES
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcola Road, 3C43
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: System 7.1
; SOFTWARE: Word 5.0 (Patentin)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/256, 938
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: FR 92/01065
; FILING DATE: 31-JAN-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Goodman, Rosanne
; REGISTRATION NUMBER: 32,534
; REFERENCE/DOCKET NUMBER: ST92007-US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (610) 454-3817
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 787 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-256-938-4

Query Match 91.1%; Score 3112.5; DB 1; Length 787;
Best Local Similarity 94.6%; Pred. No. 3.9e-278;
Matches 596; Conservative 4; Mismatches 29; Indels 1; Gaps 1;
CY 17 QAAKEFIAMLVKRGHGEFTSDVSSYLE-GQAAKEFIAMLVKGRDAHSEVAHFKDLG 75

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Qy      136  TVATLTBETGEMADCCAKOBERNECFLOHKDNPMLPRLVREVVVMCAAFHNEETFL 195
Db      278  TVATLTBETGEMADCCAKOBERNECFLOHKDNPMLPRLVREVVVMCAAFHNEETFL 337
Qy      196  KKLVEIARHAPFYAPPELLFPAKRYKAATTECCQADAKAACILPKLDELBDGKASAK 255
Db      338  KKLVEIARHAPFYAPPELLFPAKRYKAATTECCQADAKAACILPKLDELBDGKASAK 397
Qy      256  QRLKASLOKFGERRAFKAMAVARLSQRPFAEFPAEVSCLVTDLTKVHTTECHDILLEGAD 315
Db      398  QRLKASLOKFGERRAFKAMAVARLSQRPFAEFPAEVSCLVTDLTKVHTTECHDILLEGAD 457
Qy      316  DRADLAKYICENDSISSKLKECCERPLEKSHCIAEVENDEMPADLPSLAADFVESKDV 375
Db      458  DRADLAKYICENDSISSKLKECCERPLEKSHCIAEVENDEMPADLPSLAADFVESKDV 517
Qy      376  CKRYAEAKDVFLEGFLEVARRHDPYSVLLRLAKTYETTLKCCAAADPHECYAKVFD 435
Db      518  CKRYAEAKDVFLEGFLEVARRHDPYSVLLRLAKTYETTLKCCAAADPHECYAKVFD 577
Qy      436  EFKPLVEBPONLIKONCELFEOUGEYKFOVALVRYTKVPOVSTPLTVESRNLGKVG 495
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Qy      556  TYVPEKFAETFTFHADICTLSEKERQIKKOTALVELVKHKPKATKEQLKAVMDFAAFV 615
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Db      758  EKCKKADKETCFABEGKQLVAASQAAALGL 787

RESULT 2
US-08-797-689-16
; Sequence 16, Application US/08797689
; Patent No. 5876969
; GENERAL INFORMATION:
; APPLICANT: Fleet, Reinhard
; APPLICANT: Fournier, Alain
; APPLICANT: Guitton, Jean-Dominique
; APPLICANT: Jung, Gerard
; APPLICANT: Yeh, Patricia
; TITLE OF INVENTION: NOVEL BIOLOGICALLY ACTIVE POLYPEPTIDES,
; TITLE OF INVENTION: PREPARATION THEREOF AND PHARMACEUTICAL COMPOSITION
; NUMBER OF SEQUENCES: 36
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcoia Road, 3643
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: System 7.1
; SOFTWARE: Word 5.1 (Patentin)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/797,689
; FILING DATE: 31-JAN-1997
; CLASSIFICATION: 435

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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/256,927
; FILING DATE: 28-JUL-1994
; APPLICATION NUMBER: FR 92/01064
; FILING DATE: 31-JAN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/FR93/00085
; FILING DATE: 28-JAN-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith Ph.D., Julie K.
; REGISTRATION NUMBER: P-38,619
; REFERENCE/DOCKET NUMBER: ST92006-US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (610) 454-3839
; TELEFAX: (610) 454-3808
; INFORMATION FOR SEQ ID NO: 16:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 787 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-797-689-16

Query Match      91.1%; Score 3112.5; DB 1; Length 787;
Best Local Similarity 94.6%; Pred. No. 3; 9e-278;
Matches 596; Conservative 4; Mismatches 29; Indels 1; Gaps 1;

Qy      17  QAAKEFIAMLVKGRHGEFTSDVSYLE-QQAAKEFIAMLVKGRDAHSEVAHRRFKDGLG 75
Db      158  QGMPAFASAFQRRAGVULVASHLSQFLVSVYRVLHLAQPGGGGDAHSEVAHRRFKDGLG 217
Qy      76  EENFKALVLIAPAOYLQOCPEFDHVKLVNEVTEPAFTCVADSAENCDXSILTLFEDKIC 135
Db      218  EENFKALVLIAPAOYLQOCPEFDHVKLVNEVTEPAFTCVADSAENCDXSILTLFEDKIC 277
Qy      136  TVATLTBETGEMADCCAKOBERNECFLOHKDNPMLPRLVREVVVMCAAFHNEETFL 195
Db      278  TVATLTBETGEMADCCAKOBERNECFLOHKDNPMLPRLVREVVVMCAAFHNEETFL 337
Qy      196  KKLVEIARHAPFYAPPELLFPAKRYKAATTECCQADAKAACILPKLDELBDGKASAK 255
Db      338  KKLVEIARHAPFYAPPELLFPAKRYKAATTECCQADAKAACILPKLDELBDGKASAK 397
Qy      256  QRLKASLOKFGERRAFKAMAVARLSQRPFAEFPAEVSCLVTDLTKVHTTECHDILLEGAD 315
Db      398  QRLKASLOKFGERRAFKAMAVARLSQRPFAEFPAEVSCLVTDLTKVHTTECHDILLEGAD 457
Qy      316  DRADLAKYICENDSISSKLKECCERPLEKSHCIAEVENDEMPADLPSLAADFVESKDV 375
Db      458  DRADLAKYICENDSISSKLKECCERPLEKSHCIAEVENDEMPADLPSLAADFVESKDV 517
Qy      376  CKRYAEAKDVFLEGFLEVARRHDPYSVLLRLAKTYETTLKCCAAADPHECYAKVFD 435
Db      518  CKRYAEAKDVFLEGFLEVARRHDPYSVLLRLAKTYETTLKCCAAADPHECYAKVFD 577
Qy      436  EFKPLVEBPONLIKONCELFEOUGEYKFOVALVRYTKVPOVSTPLTVESRNLGKVG 495
Db      578  EFKPLVEBPONLIKONCELFEOUGEYKFOVALVRYTKVPOVSTPLTVESRNLGKVG 637
Qy      496  KCCGHPAKRMPCAEDYLSVVLNQLCVLHEKTPVSDVTKCCESLVNRRPCFSALAEVD 555
Db      638  KCCGHPAKRMPCAEDYLSVVLNQLCVLHEKTPVSDVTKCCESLVNRRPCFSALAEVD 697
Qy      556  TYVPEKFAETFTFHADICTLSEKERQIKKOTALVELVKHKPKATKEQLKAVMDFAAFV 615
Db      698  TYVPEKFAETFTFHADICTLSEKERQIKKOTALVELVKHKPKATKEQLKAVMDFAAFV 757
Qy      616  EKCKKADKETCFABEGKQLVAASQAAALGL 645
Db      758  EKCKKADKETCFABEGKQLVAASQAAALGL 787

RESULT 3

```

US-09-984-186-16
Sequence 16, Application US/09984186
Patent No. 6686179
GENERAL INFORMATION:
APPLICANT: Fleer, Reinhard
Fournier, Alain
Guitton, Jean-Dominique
Jung, Gerard
Yeh, Patricia
TITLE OF INVENTION: NOVEL BIOLOGICALLY ACTIVE POLYPEPTIDES,
PREPARATION THEREOF AND PHARMACEUTICAL COMPOSITION
CONTAINING SAID POLYPEPTIDES
NUMBER OF SEQUENCES: 36
CORRESPONDENCE ADDRESS:
ADDRESSEE: Rhone-Poulenc Rorer Inc.
STREET: 500 Arcoia Road, 3C43
CITY: Collegeville
STATE: PA
COUNTRY: USA
ZIP: 19426
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: System 7.1
SOFTWARE: Word 5.1 (Patentin)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/984.186
FILING DATE: 29-Oct-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/797,689
FILING DATE: 31-JAN-1997
APPLICATION NUMBER: US 08/256,927
FILING DATE: 28-JUL-1994
APPLICATION NUMBER: FR 92/01064
FILING DATE: 31-JAN-1992
APPLICATION NUMBER: PCT/FR93/00085
FILING DATE: 28-JAN-1993
ATTORNEY/AGENT INFORMATION:
NAME: Smith Ph.D., Julie K.
REGISTRATION NUMBER: P-38,619
REFERENCE/DOCKET NUMBER: ST92006-US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (610) 454-3839
FAX: (610) 454-3808
INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
LENGTH: 787 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 16:
US-09-984-186-16
Query Match 91.1%; Score 3112.5; DB 2; Length 787;
Best Local Similarity 94.6%; Pred. No. 3.9e-278;
Matches 596; Conservative 4; Mismatches 29; Indels 1; Gaps 1;

QY 256 QRLKCSLQKFGERRAFKAMAVARLSQRPFAEFVSKLVTDLTITKVTETCCGDLLECAD 315
DB 398 QRLKCSLQKFGERRAFKAMAVARLSQRPFAEFVSKLVTDLTITKVTETCCGDLLECAD 457
QY 316 DRADLAKYICENODSISSKLKECCERPLKSHCIAVENDENRPAALPSIADPVSKOV 315
DB 458 DRADLAKYICENODSISSKLKECCERPLKSHCIAVENDENRPAALPSIADPVSKOV 517
QY 376 CKNYAKKQVFGMPLEYARBRHDYSVLLMLATYETETLEKCCAAADPHCYAKVPD 435
DB 518 CKNYAKKQVFGMPLEYARBRHDYSVLLMLATYETETLEKCCAAADPHCYAKVPD 577
QY 436 EFKPLVEEPONLIKONCELEFQLEGEYFONALIVRYTKVPQYSTPLVEVSBNLKVGS 495
DB 578 EFKPLVEEPONLIKONCELEFQLEGEYFONALIVRYTKVPQYSTPLVEVSBNLKVGS 637
QY 496 KCKGHPKAKMPCAEADYLSVNLQCVLHETPVSRVTCKCTESLVNRPSCSALEVDE 555
DB 638 KCKGHPKAKMPCAEADYLSVNLQCVLHETPVSRVTCKCTESLVNRPSCSALEVDE 697
QY 556 TYPKKEFNATFTFHADICTLSKERQIKKQTLVELVGHKPKATKROLKAVMDPFAFV 615
DB 698 TYPKKEFNATFTFHADICTLSKERQIKKQTLVELVGHKPKATKROLKAVMDPFAFV 757
QY 616 EKCKKADKETCFABEGKQLVAASQAALGL 645
DB 758 EKCKKADKETCFABEGKQLVAASQAALGL 787

RESULT 4
US-09-976-594-977
Sequence 977, Application US/09976594
Patent No. 6673549
GENERAL INFORMATION:
APPLICANT: Furness, Michael
Buehler, Jenny
TITLE OF INVENTION: GENES EXPRESSED IN C3A LIVER CELL CULTURES TREATED WITH STEROIDS
FILE REFERENCE: PA-0041 US
CURRENT APPLICATION NUMBER: US/09/976,594
CURRENT FILING DATE: 2001-10-12
PRIOR APPLICATION NUMBER: 60/240,409
PRIOR FILING DATE: 2000-10-12
NUMBER OF SEQ ID NOS: 1143
SOFTWARE: PERL Program
SEQ ID NO 977
LENGTH: 609
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No. 6673549 088957CD1
US-09-976-594-977
Query Match 91.0%; Score 3108; DB 2; Length 609;
Best Local Similarity 100.0%; Pred. No. 6.9e-278;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 60 RDAKSEVARRFKDQGENFKALVLIAPAQYLQCCPFEDHVKLVNEVTEFAKTCVADESA 119
DB 24 RDAKSEVARRFKDQGENFKALVLIAPAQYLQCCPFEDHVKLVNEVTEFAKTCVADESA 83
QY 120 ENCKSKLHTLFGDGLCTVATLRETYGEMADCCAKQEBERNECFLOHODNDNPLPRLVPE 179
DB 84 ENCKSKLHTLFGDGLCTVATLRETYGEMADCCAKQEBERNECFLOHODNDNPLPRLVPE 143
QY 180 VDWACTAFHNDNEETFLKKYIYELARRAPFYAPBELTFEARRYKAAFTTECCOADAKAACL 239
DB 144 VDWACTAFHNDNEETFLKKYIYELARRAPFYAPBELTFEARRYKAAFTTECCOADAKAACL 203
QY 240 PKLDELDEGKASAKORLKCSLQKFGERRAFKAMAVARLSQRPFAEFVSKLVTDLT 299
DB 204 PKLDELDEGKASAKORLKCSLQKFGERRAFKAMAVARLSQRPFAEFVSKLVTDLT 263

QY 300 KYHTECHGDLLECADRADLAKYICENODSISKKECCERPLEKSHCIAVENDEMP 359
DB 264 KYHTECHGDLLECADRADLAKYICENODSISKKECCERPLEKSHCIAVENDEMP 323
QY 360 ADPLSLAADFVESKDYCKNYAAKDVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 419
DB 324 ADPLSLAADFVESKDYCKNYAAKDVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 383
QY 420 CCAADPHCEYAKVPDEFKPLVEBPONL IKONCELPFOUGEYKFOVALVRYTKVPQVS 479
DB 384 CCAADPHCEYAKVPDEFKPLVEBPONL IKONCELPFOUGEYKFOVALVRYTKVPQVS 443
QY 480 TPTLVEVSRNLGVKSGCKCKHPEAKRMPCAEDYLSVNLQLCYLHEKTPVSDRVTKCTE 539
DB 444 TPTLVEVSRNLGVKSGCKCKHPEAKRMPCAEDYLSVNLQLCYLHEKTPVSDRVTKCTE 503
QY 540 SLVNRRCFSALAEVDETYVPKEFNAETFTFHADI CTLSEKERQIKQOTALVELVHKPKA 599
DB 504 SLVNRRCFSALAEVDETYVPKEFNAETFTFHADI CTLSEKERQIKQOTALVELVHKPKA 563
QY 600 TKGQLKAVMDPFAAFVEKCKKADDKETCFABEGKQLVAASQAALGL 645
DB 564 TKGQLKAVMDPFAAFVEKCKKADDKETCFABEGKQLVAASQAALGL 609

RESULT 5
US-09-919-039-370
; Sequence 370, Application US/09919039
; Patent No. 6727066
; GENERAL INFORMATION:
; APPLICANT: Kaest, Matthew R.
; TITLE OF INVENTION: GENES EXPRESSED IN TREATED HUMAN C3A LIVER CELL CULTURES
; FILE REFERENCE: PA-0035 US
; CURRENT APPLICATION NUMBER: US/09/919,039
; CURRENT FILING DATE: 2002-09-09
; PRIOR APPLICATION NUMBER: 60/222,113
; PRIOR FILING DATE: 2000-07-28
; NUMBER OF SEQ ID NOS: 401
; SOFTWARE: PERL Program
; SEQ ID NO: 370
; LENGTH: 609
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc-feature
; OTHER INFORMATION: Incyte ID No. 6727066 088957CD1
US-09-919-039-370

Query Match 91.0%; Score 3108; DB 2; Length 609;
Best Local Similarity 100.0%; Pred. No. 6,9e-278;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 60 RDAHKSVAHRFKOLGEEFKALVLIAPQYLQCCPEEDHYKLVNEVTEFAKTCVADESA 119
DB 24 RDAHKSVAHRFKOLGEEFKALVLIAPQYLQCCPEEDHYKLVNEVTEFAKTCVADESA 83
QY 120 ENCKSLHTLFGDKLYATATRETYGEMADCAQOEPRNRCFT OHODDNNTPLVRPE 179
DB 84 ENCKSLHTLFGDKLYATATRETYGEMADCAQOEPRNRCFT OHODDNNTPLVRPE 143
QY 180 VDWVCTAFHNDENFTFKKYLVEIARRHPYFAPPELLFPAKKYKAFTSCCAADKAACIL 239
DB 144 VDWVCTAFHNDENFTFKKYLVEIARRHPYFAPPELLFPAKKYKAFTSCCAADKAACIL 203
QY 240 PKLDELNDGKASSAKQRLKCAISLOKFGERAFKAAVAVRLSQRPKAFPAVSKLVTDLT 299
DB 204 PKLDELNDGKASSAKQRLKCAISLOKFGERAFKAAVAVRLSQRPKAFPAVSKLVTDLT 263
QY 300 KYHTECHGDLLECADRADLAKYICENODSISKKECCERPLEKSHCIAVENDEMP 359
DB 264 KYHTECHGDLLECADRADLAKYICENODSISKKECCERPLEKSHCIAVENDEMP 323

QY 360 ADPLSLAADFVESKDYCKNYAAKDVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 419
DB 324 ADPLSLAADFVESKDYCKNYAAKDVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 383
QY 420 CCAADPHCEYAKVPDEFKPLVEBPONL IKONCELPFOUGEYKFOVALVRYTKVPQVS 479
DB 384 CCAADPHCEYAKVPDEFKPLVEBPONL IKONCELPFOUGEYKFOVALVRYTKVPQVS 443
QY 480 TPTLVEVSRNLGVKSGCKCKHPEAKRMPCAEDYLSVNLQLCYLHEKTPVSDRVTKCTE 539
DB 444 TPTLVEVSRNLGVKSGCKCKHPEAKRMPCAEDYLSVNLQLCYLHEKTPVSDRVTKCTE 503
QY 540 SLVNRRCFSALAEVDETYVPKEFNAETFTFHADI CTLSEKERQIKQOTALVELVHKPKA 599
DB 504 SLVNRRCFSALAEVDETYVPKEFNAETFTFHADI CTLSEKERQIKQOTALVELVHKPKA 563
QY 600 TKGQLKAVMDPFAAFVEKCKKADDKETCFABEGKQLVAASQAALGL 645
DB 564 TKGQLKAVMDPFAAFVEKCKKADDKETCFABEGKQLVAASQAALGL 609

RESULT 6
US-08-797-689-2
; Sequence 2, Application US/08797689
; Patent No. 5876969
; GENERAL INFORMATION:
; APPLICANT: Fleer, Reinhard
; APPLICANT: Fournier, Alain
; APPLICANT: Guitton, Jean-Dominique
; APPLICANT: Jung, Gerard
; APPLICANT: Yen, Patricia
; TITLE OF INVENTION: NOVEL BIOLOGICALLY ACTIVE POLYPEPTIDES,
; TITLE OF INVENTION: PREPARATION THEREOF AND PHARMACEUTICAL COMPOSITION
; TITLE OF INVENTION: CONTAINING SAID POLYPEPTIDES
; NUMBER OF SEQUENCES: 36
; CORRESPONDENCE ADDRESS:
; ADDRESSER: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcola Road, 3C43
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: System 7.1
; SOFTWARE: Word 5.1 (PatentIn)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/797,689
; FILING DATE: 31-JAN-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/256,927
; FILING DATE: 28-JUL-1994
; APPLICATION NUMBER: FR 92/01064
; FILING DATE: 31-JAN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/FR93/00085
; FILING DATE: 28-JAN-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith Ph.D., Julie K.
; REGISTRATION NUMBER: P-38,619
; REFERENCE/DOCKET NUMBER: ST92006-US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (610) 454-3839
; TELEFAX: (610) 454-3808
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 610 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-797-689-2


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RESULT 8
US-09-949-016-11170
; Sequence 11170, Application US/09949016
; Patent No. 681239
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; FILE REFERENCE: C1001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11170
; LENGTH: 622
; TYPE: PRN
; ORGANISM: Human
US-09-949-016-11170

Query Match          91.0%; Score 3108; DB 2; Length 622;
Best Local Similarity 100.0%; Pred. No. 7.1e-278;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 60 RDAHSEVAHREFKDLGEENFKALVLIAPAOYLQCCPEDEHVKLVNEVTEPAKTCVADESA 119
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|
|
DB 37 RDAHSEVAHREFKDLGEENFKALVLIAPAOYLQCCPEDEHVKLVNEVTEPAKTCVADESA 96
|
|
|
QY 120 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNECFLOHKDNDPNLPRIVRPE 179
|
|
|
DB 97 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNECFLOHKDNDPNLPRIVRPE 156
|
|
|
QY 180 VDWACIAFHNEETFLKKLYEILARRHPYFAPELLFFPAKRYKAFTCCOADAADKAACL 239
|
|
|
DB 157 VDWACIAFHNEETFLKKLYEILARRHPYFAPELLFFPAKRYKAFTCCOADAADKAACL 216
|
|
|
QY 240 PKDELDEDEGKASSAKORLKASLOKGERAFKAMAVARLSORFPKAFPAVSKLVTDLT 299
|
|
|
DB 217 PKDELDEDEGKASSAKORLKASLOKGERAFKAMAVARLSORFPKAFPAVSKLVTDLT 276
|
|
|
QY 300 KVHTECHGDLLECADRADLAKYICENODSISSKLBCECKPLLEKSHCIAVENDEMP 359
|
|
|
DB 277 KVHTECHGDLLECADRADLAKYICENODSISSKLBCECKPLLEKSHCIAVENDEMP 336
|
|
|
QY 360 ADLPSTLAADVYESKDVCKNTAEAKDVFLEGMFLYEYARRHPDYSVVLRLRLAKTYETTLK 419
|
|
|
DB 337 ADLPSTLAADVYESKDVCKNTAEAKDVFLEGMFLYEYARRHPDYSVVLRLRLAKTYETTLK 396
|
|
|
QY 420 CCAADHHECYAKVFDEFKPLVEEPQNLIKONCELPBQLGKYKFNALLVRYTKKVPQVS 479
|
|
|
DB 397 CCAADHHECYAKVFDEFKPLVEEPQNLIKONCELPBQLGKYKFNALLVRYTKKVPQVS 456
|
|
|
QY 480 TPTLIVSRNIGKYGSCCKGPEAKRMPKADYISVVLNOLCVLHEKTPVSDRYTKCTE 539
|
|
|
DB 457 TPTLIVSRNIGKYGSCCKGPEAKRMPKADYISVVLNOLCVLHEKTPVSDRYTKCTE 516
|
|
|
QY 540 SLVNRRCFSALEVDETYVPKEFNAETFTFHADICTLSEKEROIKOTATVETLVKHPKA 599
|
|
|
DB 517 SLVNRRCFSALEVDETYVPKEFNAETFTFHADICTLSEKEROIKOTATVETLVKHPKA 576
|
|
|
QY 600 TKEQLKAVMDFAAFVEKCCCAADUKETCFABEGKKLVAAAGALGL 645
|
|
|
DB 577 TKEQLKAVMDFAAFVEKCCCAADUKETCFABEGKKLVAAAGALGL 622
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RESULT 9
US-08-256-938-2
; Sequence 2, Application US/08256938
```

```
; Patent No. 5665863
; GENERAL INFORMATION:
; APPLICANT: Yeh, Patrice
; TITLE OF INVENTION: NEW POLYPEPTIDES HAVING GRANULOCYTE
; FILE REFERENCE: COLONY STIMULATING ACTIVITY, PREPARATION THEREOF AND
; TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTAINING SAID POLYPEPTIDES
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSER: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcola Road, 3043
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: System 7.1
; SOFTWARE: Word 5.0 (Patentin)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/256,938
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: FR 92/01065
; FILING DATE: 31-JAN-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Goodman, Rosanne
; REGISTRATION NUMBER: 32,534
; REFERENCE/DOCKET NUMBER: ST92007-US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (610) 454-3817
; TELEFAX: (610) 454-3808
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 783 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-256-938-2

Query Match          91.0%; Score 3108; DB 1; Length 783;
Best Local Similarity 100.0%; Pred. No. 1e-277;
Matches 586; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 60 RDAHSEVAHREFKDLGEENFKALVLIAPAOYLQCCPEDEHVKLVNEVTEPAKTCVADESA 119
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|
|
DB 24 RDAHSEVAHREFKDLGEENFKALVLIAPAOYLQCCPEDEHVKLVNEVTEPAKTCVADESA 83
|
|
|
QY 120 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNECFLOHKDNDPNLPRIVRPE 179
|
|
|
DB 84 ENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNECFLOHKDNDPNLPRIVRPE 143
|
|
|
QY 180 VDWACIAFHNEETFLKKLYEILARRHPYFAPELLFFPAKRYKAFTCCOADAADKAACL 229
|
|
|
DB 144 VDWACIAFHNEETFLKKLYEILARRHPYFAPELLFFPAKRYKAFTCCOADAADKAACL 203
|
|
|
QY 240 PKDELDEDEGKASSAKORLKASLOKGERAFKAMAVARLSORFPKAFPAVSKLVTDLT 299
|
|
|
DB 204 PKDELDEDEGKASSAKORLKASLOKGERAFKAMAVARLSORFPKAFPAVSKLVTDLT 263
|
|
|
QY 300 KVHTECHGDLLECADRADLAKYICENODSISSKLBCECKPLLEKSHCIAVENDEMP 359
|
|
|
DB 264 KVHTECHGDLLECADRADLAKYICENODSISSKLBCECKPLLEKSHCIAVENDEMP 323
|
|
|
QY 360 ADLPSTLAADVYESKDVCKNTAEAKDVFLEGMFLYEYARRHPDYSVVLRLRLAKTYETTLK 419
|
|
|
DB 324 ADLPSTLAADVYESKDVCKNTAEAKDVFLEGMFLYEYARRHPDYSVVLRLRLAKTYETTLK 383
|
|
|
QY 420 CCAADHHECYAKVFDEFKPLVEEPQNLIKONCELPBQLGKYKFNALLVRYTKKVPQVS 479
|
|
|
DB 384 CCAADHHECYAKVFDEFKPLVEEPQNLIKONCELPBQLGKYKFNALLVRYTKKVPQVS 443
|
|
|
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QY 480 TPTLVEVSRLNGKVGSKCCCKHPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRVTKCTE 539
DB 444 TPTLVEVSRLNGKVGSKCCCKHPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRVTKCTE 503
QY 540 SLVNRRCPSALBEVDITYPKFNAETFTFHADICTLSEKEROIKKQTPALVELVHKPKA 599
DB 504 SLVNRRCPSALBEVDITYPKFNAETFTFHADICTLSEKEROIKKQTPALVELVHKPKA 563
QY 600 TKEQLKAVMDPAFAFVEKCKCKADKCTCFABEGKKLVAAASQALGL 645
DB 564 TKEQLKAVMDPAFAFVEKCKCKADKCTCFABEGKKLVAAASQALGL 609

RESULT 10
US-08-222-619-3
Sequence 3, Application US/08222619
Patent No. 5652352
GENERAL INFORMATION:
APPLICANT: Lichenstein, Henri
APPLICANT: Lyons, David
APPLICANT: Morfel, Mark
APPLICANT: Wright, Samuel
TITLE OF INVENTION: Afamin: A Human Serum Albumin-Like
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: Amgen Center, Patent Operations/RRC
STREET: 1840 DeHavilland Drive
CITY: Thousand Oaks
STATE: California
COUNTRY: U.S.
ZIP: 91320-1789

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/222,619
FILING DATE:
CLASSIFICATION: 435
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 609 amino acids
TYPE: amino acid
STRANDEDNESS: unknown
TOPOLOGY: unknown
MOLECULE TYPE: protein
US-08-222-619-3

Query Match 90.8%; Score 3104; DB 1; Length 609;
Best Local Similarity 99.8%; Pred. No. 1,6e-277;
Matches 585; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 60 RDAHSEVAHRPKDGEENFKALVLIAPAOYLQCCPFEDHYLVNEVTEPAKTCVADBSA 119
DB 24 RDAHSEVAHRPKDGEENFKALVLIAPAOYLQCCPFEDHYLVNEVTEPAKTCVADBSA 83
QY 120 ENCDKSLTLFGDKLCTVATLRETYGEMADCCAKOPEBNECFLOHKDNPULPRLVPE 179
DB 84 ENCDKSLTLFGDKLCTVATLRETYGEMADCCAKOPEBNECFLOHKDNPULPRLVPE 143
QY 180 VDMCTAFHDNEETPLKTYLIARHPYFYAPBELIFPAKRYKAAFTBCCQAADQAACL 239
DB 144 VDMCTAFHDNEETPLKTYLIARHPYFYAPBELIFPAKRYKAAFTBCCQAADQAACL 203
QY 240 PRLDELRODGKASSAKORLKCAKSLQKESGAFKAMAVATLSORPPKAEPAVSKLYTDLT 299
DB 204 PRLDELRODGKASSAKORLKCAKSLQKESGAFKAMAVATLSORPPKAEPAVSKLYTDLT 263
QY 300 KHTTECHGDLLECADRADLAKYICENODSISSKLKECCPEPLLEKSHCIAVENDEMP 359
DB 264 KHTTECHGDLLECADRADLAKYICENODSISSKLKECCPEPLLEKSHCIAVENDEMP 323

QY 360 ADLPSLAADFEVSKDVCKNTAEAKDVEFGFLEYEARHPDYSVLLLRILAKYETTLK 419
DB 324 ADLPSLAADFEVSKDVCKNTAEAKDVEFGFLEYEARHPDYSVLLLRILAKYETTLK 383
QY 420 CCAADPHCEYAKTFDEPKPLVEBPQULIKONCELFEQLGELYKQNNLLVRYTKKPVQS 479
DB 384 CCAADPHCEYAKTFDEPKPLVEBPQULIKONCELFEQLGELYKQNNLLVRYTKKPVQS 443
QY 480 TPTLVEVSRLNGKVGSKCCCKHPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRVTKCTE 539
DB 444 TPTLVEVSRLNGKVGSKCCCKHPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRVTKCTE 503
QY 540 SLVNRRCPSALBEVDITYPKFNAETFTFHADICTLSEKEROIKKQTPALVELVHKPKA 599
DB 504 SLVNRRCPSALBEVDITYPKFNAETFTFHADICTLSEKEROIKKQTPALVELVHKPKA 563
QY 600 TKEQLKAVMDPAFAFVEKCKCKADKCTCFABEGKKLVAAASQALGL 645
DB 564 TKEQLKAVMDPAFAFVEKCKCKADKCTCFABEGKKLVAAASQALGL 609

RESULT 11
US-08-433-037-4
Sequence 4, Application US/08433037
Patent No. 5707828
GENERAL INFORMATION:
APPLICANT: Sreekrisna, Kotikanyadan
APPLICANT: Bart, Kathryn A.
APPLICANT: Brietley, Russell A.
APPLICANT: Thill, Gregory P.
APPLICANT: Techopp, Juerg F.
TITLE OF INVENTION: EXPRESSION OF HUMAN SERUM ALBUMIN IN
NUMBER OF SEQUENCES: 19
CORRESPONDENCE ADDRESS:
ADDRESSEE: Scully, Scott, Murphy & Presser
STREET: 400 Garden City Plaza
CITY: Garden City
STATE: New York
COUNTRY: U.S.A.
ZIP: 11530-0299

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/433,037
FILING DATE: 03-MAY-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Digisilio, Frank S.
REGISTRATION NUMBER: 31,346
REFERENCE/DOCKET NUMBER: 91082
TELECOMMUNICATION INFORMATION:
TELEPHONE: (516) 742-4343
TELEFAX: (516) 742-4366
TELEX: 230 901 SANS UR
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 609 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-433-037-4

Query Match 90.8%; Score 3104; DB 1; Length 609;
Best Local Similarity 99.8%; Pred. No. 1,6e-277;
Matches 585; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 60 RDAHSEVAHRPKDGEENFKALVLIAPAOYLQCCPFEDHYLVNEVTEPAKTCVADBSA 119

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Db      24  RDAHSEVAHRFKDGLGENFKALVLIAPAOYLQCCPEEDHVKLVNEVTEFAKTCVADESA 83
Qy      120  ENDCKSLHTLPBGDKLCVATLRETYGEMADCCAKQEBERNECFLOHODDNPRLVLRPE 179
Db      84  ENCCKSLHTLPBGDKLCVATLRETYGEMADCCAKQEBERNECFLOHODDNPRLVLRPE 143
Qy      180  VDVWCTAFHNDNEETFLKKLYEIRARRHPYFYABELLFFAKRYKAATTECCOADAACA 239
Db      144  VDVWCTAFHNDNEETFLKKLYEIRARRHPYFYABELLFFAKRYKAATTECCOADAACA 203
Qy      240  PKDELDEBEGKASAKORLKCASLOKGERAFKAMAVARLSORFPKAEFAVSKLVTDLT 299
Db      204  PKDELDEBEGKASAKORLKCASLOKGERAFKAMAVARLSORFPKAEFAVSKLVTDLT 263
Qy      300  KVHTECGHDLLECADRADLAKYICENODSISSKLECECEKPLLEKSHCIAEVENDEMP 359
Db      264  KVHTECGHDLLECADRADLAKYICENODSISSKLECECEKPLLEKSHCIAEVENDEMP 323
Qy      360  ADLPSTLAADPVESKDVCKNYAEAKDVFLGMFLYEYARRHPDYSVLLRLAKYETTTLEK 419
Db      324  ADLPSTLAADPVESKDVCKNYAEAKDVFLGMFLYEYARRHPDYSVLLRLAKYETTTLEK 383
Qy      420  CCAADPHBECYAKVDFEFPKLVBEPONLIKONCELFEOQLGXYKQNALVRYTKKVPQVS 479
Db      384  CCAADPHBECYAKVDFEFPKLVBEPONLIKONCELFEOQLGXYKQNALVRYTKKVPQVS 443
Qy      480  TPTLVEVSRLGKVGSKCCGHPKAKMPCAEADYLSVVLNQLCVLHEKTPVSDRVTCKCTE 539
Db      444  TPTLVEVSRLGKVGSKCCGHPKAKMPCAEADYLSVVLNQLCVLHEKTPVSDRVTCKCTE 503
Qy      540  SLVNRRCFSALEVDETYVPKEFNAETFTFHADICTLSEKEROIKQOTALVELVKGKPKA 599
Db      504  SLVNRRCFSALEVDETYVPKEFNAETFTFHADICTLSEKEROIKQOTALVELVKGKPKA 563
Qy      600  TKEQLKAVMDPFAAFVEKCKKADKCTCFABEGKQLVAASQAALGL 645
Db      564  TKEQLKAVMDPFAAFVEKCKKADKCTCFABEGKQLVAASQAALGL 609

RESULT 12
US-08-897-956A-2
; Sequence 2, Application US/08897956A
; Patent No. 6423512
; GENERAL INFORMATION:
; APPLICANT: Mary Ellen Digan
; APPLICANT: Philip Lake
; APPLICANT: Hermann Gram
; TITLE OF INVENTION: Fusion Polypeptides
; FILE REFERENCE: 600-7244/CPA
; CURRENT APPLICATION NUMBER: US/08/897,956A
; PRIOR FILING DATE: 1997-07-21
; PRIOR APPLICATION NUMBER: 60/022,689
; PRIOR FILING DATE: 1996-07-26
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 609
; ORGANISM: Homo Sapiens
US-08-897-956A-2

Query Match      90.8%; Score 3104; DB 2; Length 609;
Best Local Similarity 99.8%; Pred. No. 1.6e-277;
Matches 585; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
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Qy      180  VDVWCTAFHNDNEETFLKKLYEIRARRHPYFYABELLFFAKRYKAATTECCOADAACA 239
Db      144  VDVWCTAFHNDNEETFLKKLYEIRARRHPYFYABELLFFAKRYKAATTECCOADAACA 203
Qy      240  PKDELDEBEGKASAKORLKCASLOKGERAFKAMAVARLSORFPKAEFAVSKLVTDLT 299
Db      204  PKDELDEBEGKASAKORLKCASLOKGERAFKAMAVARLSORFPKAEFAVSKLVTDLT 263
Qy      300  KVHTECGHDLLECADRADLAKYICENODSISSKLECECEKPLLEKSHCIAEVENDEMP 359
Db      264  KVHTECGHDLLECADRADLAKYICENODSISSKLECECEKPLLEKSHCIAEVENDEMP 323
Qy      360  ADLPSTLAADPVESKDVCKNYAEAKDVFLGMFLYEYARRHPDYSVLLRLAKYETTTLEK 419
Db      324  ADLPSTLAADPVESKDVCKNYAEAKDVFLGMFLYEYARRHPDYSVLLRLAKYETTTLEK 383
Qy      420  CCAADPHBECYAKVDFEFPKLVBEPONLIKONCELFEOQLGXYKQNALVRYTKKVPQVS 479
Db      384  CCAADPHBECYAKVDFEFPKLVBEPONLIKONCELFEOQLGXYKQNALVRYTKKVPQVS 443
Qy      480  TPTLVEVSRLGKVGSKCCGHPKAKMPCAEADYLSVVLNQLCVLHEKTPVSDRVTCKCTE 539
Db      444  TPTLVEVSRLGKVGSKCCGHPKAKMPCAEADYLSVVLNQLCVLHEKTPVSDRVTCKCTE 503
Qy      540  SLVNRRCFSALEVDETYVPKEFNAETFTFHADICTLSEKEROIKQOTALVELVKGKPKA 599
Db      504  SLVNRRCFSALEVDETYVPKEFNAETFTFHADICTLSEKEROIKQOTALVELVKGKPKA 563
Qy      600  TKEQLKAVMDPFAAFVEKCKKADKCTCFABEGKQLVAASQAALGL 645
Db      564  TKEQLKAVMDPFAAFVEKCKKADKCTCFABEGKQLVAASQAALGL 609
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RESULT 13
PCT-US95-04075-3
; Sequence 3, Application PC/TUS9504075
; GENERAL INFORMATION:
; APPLICANT: AMGEN INC.
; TITLE OF INVENTION: Afamin: A Human Serum Albumin-like
; TITLE OF INVENTION: Protein
; NUMBER OF SEQUENCES: 33
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Amgen Center, Patent Operations/RRC
; STREET: 1840 DeHavilland Drive
; CITY: Thousand Oaks
; STATE: California
; COUNTRY: U.S.
; ZIP: 91320-1789
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US95/04075
; FILING DATE:
; CLASSIFICATION:
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 609 amino acids
; TYPE: amino acid
; STRANDEDNESS: unknown
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
PCT-US95-04075-3
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Query Match      90.8%; Score 3104; DB 4; Length 609;
Best Local Similarity 99.8%; Pred. No. 1.6e-277;
Matches 585; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy      60  RDAHSEVAHRFKDGLGENFKALVLIAPAOYLQCCPEEDHVKLVNEVTEFAKTCVADESA 119
Db      24  RDAHSEVAHRFKDGLGENFKALVLIAPAOYLQCCPEEDHVKLVNEVTEFAKTCVADESA 83
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QY 120 ENCDKSLHTLFGDGLCTVATLRETYGEMADCCAKQEBERNECFLOHNDNDPNLPRLYRPE 179
DB 84 ENCDKSLHTLFGDGLCTVATLRETYGEMADCCAKQEBERNECFLOHNDNDPNLPRLYRPE 143
QY 180 VDWMTAFHNEBETFLKKYLYEIAARRHPFYAPABELLFFAKRYKAFTTECCOADAACA 239
DB 144 VDWMTAFHNEBETFLKKYLYEIAARRHPFYAPABELLFFAKRYKAFTTECCOADAACA 203
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DB 204 PKDLRLDEGKASSAKQRLKCAISLOKFGERAFAKAWAVARLSQRPFAEPAEVSFLVTDLT 263
QY 300 KMHTECHGDLLECADRADLAKYICENODSISSKLKCEKPELLEKSHCIAVENDEMP 359
DB 264 KMHTECHGDLLECADRADLAKYICENODSISSKLKCEKPELLEKSHCIAVENDEMP 323
QY 360 ADPLSLADPVESKDVCKNYAEAKOVFLGMPLYEYARRHPDYSVLLRLAKYETTLLEK 419
DB 324 ADPLSLADPVESKDVCKNYAEAKOVFLGMPLYEYARRHPDYSVLLRLAKYETTLLEK 383
QY 420 CCAADPHECYAKVFDEKPLVEBPONLIKONCELFQOLGEYKFONALLVRYTKVPQVS 479
DB 384 CCAADPHECYAKVFDEKPLVEBPONLIKONCELFQOLGEYKFONALLVRYTKVPQVS 443
QY 480 TPRTVEYSRNLGKSGKCKKPEAKRMPCAEDYLSVNLQLCVHTEKTPVSDRYTKCTE 539
DB 444 TPRTVEYSRNLGKSGKCKKPEAKRMPCAEDYLSVNLQLCVHTEKTPVSDRYTKCTE 503
QY 540 SLVNRRCFSALVEVDETYVPKEFNAETFTFHADICTLSEKERQIKKQTLVELYKHPKA 599
DB 504 SLVNRRCFSALVEVDETYVPKEFNAETFTFHADICTLSEKERQIKKQTLVELYKHPKA 563
QY 600 TKBOLKAVMDPFAAFVEKCKKADKCTCFABEGKKLVAASQALGL 645
DB 564 TKBOLKAVMDPFAAFVEKCKKADKCTCFABEGKKLVAASQALGL 609

RESULT 14
US-08-897-956A-3
Sequence 3, Application US/08897956A
Patent No. 6423512
GENERAL INFORMATION:
APPLICANT: Mary Ellen Digan
APPLICANT: Philip Lake
APPLICANT: Hermann Gram
TITLE OF INVENTION: Fusion Polypeptides
FILE REFERENCE: 600-7244/CPA
CURRENT APPLICATION NUMBER: US/08/897,956A
CURRENT FILING DATE: 1997-07-21
PRIOR APPLICATION NUMBER: 60/022,689
PRIOR FILING DATE: 1996-07-26
NUMBER OF SEQ ID NOS: 38
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 3
LENGTH: 978
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURES:
OTHER INFORMATION: Fusion polypeptide
US-08-897-956A-3

Query Match 90.8%; Score 3103.5; DB 2; Length 978;
Best Local Similarity 98.8%; Pred. No. 3.6e-277;
Matches 586; Conservative 1; Mismatches 3; Indels 3; Gaps 1;

QY 55 WLVR---GRDAKSVARRFDLGENRKAIVLTAFAQYLQCCPEHDVKKVNEVTERAK 111
DB 203 WLASGGSSDAKSSVARRFDLGENRKAIVLTAFAQYLQCCPEHDVKKVNEVTERAK 262
QY 112 TCVADESANCDKSLHTLFGDGLCTVATLRETYGEMADCCAKQEBERNECFLOHNDNDPN 171
DB 263 TCVADESANCDKSLHTLFGDGLCTVATLRETYGEMADCCAKQEBERNECFLOHNDNDPN 322

QY 172 LPRLYRPEVDVMTAFHNEBETFLKKYLYEIAARRHPFYAPABELLFFAKRYKAFTTECCQA 231
DB 323 LPRLYRPEVDVMTAFHNEBETFLKKYLYEIAARRHPFYAPABELLFFAKRYKAFTTECCQA 382
QY 232 ADRAACLLPKDLRLDEGKASSAKQRLKCAISLOKFGERAFAKAWAVARLSQRPFAEPAEV 291
DB 383 ADRAACLLPKDLRLDEGKASSAKQRLKCAISLOKFGERAFAKAWAVARLSQRPFAEPAEV 442
QY 292 SKVITDLTKHTECHGDLLECADRADLAKYICENODSISSKLKCEKPELLEKSHCIA 351
DB 443 SKVITDLTKHTECHGDLLECADRADLAKYICENODSISSKLKCEKPELLEKSHCIA 502
QY 352 EVENDEMPADPLSLADPVESKDVCKNYAEAKOVFLGMPLYEYARRHPDYSVLLRLAK 411
DB 503 EVENDEMPADPLSLADPVESKDVCKNYAEAKOVFLGMPLYEYARRHPDYSVLLRLAK 562
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DB 563 TYETTLLEKCCAADPHECYAKVFDEKPLVEBPONLIKONCELFQOLGEYKFONALLVRY 622
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DB 623 TKKVPQVSTPLVEYSRNLGKSGKCKKPEAKRMPCAEDYLSVNLQLCVHTEKTPVSD 682
QY 532 RVTKCTESLVNRRPCFSALVEVDETYVPKEFNAETFTFHADICTLSEKERQIKKQTLVE 591
DB 683 RVTKCTESLVNRRPCFSALVEVDETYVPKEFNAETFTFHADICTLSEKERQIKKQTLVE 742
QY 592 LVKHKPATKEOLKAVMDPFAAFVEKCKKADKCTCFABEGKKLVAASQALG 644
DB 743 LVKHKPATKEOLKAVMDPFAAFVEKCKKADKCTCFABEGKKLVAASQALG 795

RESULT 15
US-08-153-799-14
Sequence 14, Application US/08153799
Patent No. 5766883
GENERAL INFORMATION:
APPLICANT: Ballance, David J
APPLICANT: Goodey, Andrew R
TITLE OF INVENTION: Polypeptides
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
ADDRESSEE: R Hain Swope, BOC Health Care Inc
STREET: 100 Mountain Avenue
CITY: Murray Hill
STATE: New Jersey
COUNTRY: USA
ZIP: 07974
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/153,799
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/847975
FILING DATE: 06-MAR-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 8909916.2
FILING DATE: 29-APR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB90/00650
FILING DATE: 26-APR-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/775952
FILING DATE: 29-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Swope, R Hain

Job time : 42.7706 secs

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REGISTRATION NUMBER: 24864
REFERENCE/DOCKET NUMBER: 92H832
TELECOMMUNICATION INFORMATION:
TELEPHONE: (908) 665 2400
TELEFAX: (908) 771 6159
TELEX: 219484
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 585 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEICAL: NO
ORIGINAL SOURCE:
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: Region
LOCATION: 369..419
OTHER INFORMATION: /note= "Alternative C-termini of
OTHER INFORMATION: HSA(1-n)"
FEATURE:
NAME/KEY: Region
LOCATION: 1..585
OTHER INFORMATION: /note= "Amino acid sequence of
OTHER INFORMATION: natural HSA"
US-08-153-799-14
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Query Match 90.8%; Score 3103; DB 1; Length 585;
Best Local Similarity 100.0%; Pred. No. 1.9e-277;
Matches 585; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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DB 1 DAHSEVAHRRFKDGEENFKALVLIAPAOYLQCCPFEDHVKLVNEVTEFAKTCVADESAS 60
QY 121 NCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPERNBCFLQKDDNPVLPRVREY 180
DB 61 NCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPERNBCFLQKDDNPVLPRVREY 120
QY 181 DVMCTAFHNDNETFLKKYVEIARHPYFAPPELLFFAKRYKAFTCCOADAACACLLP 240
DB 121 DVMCTAFHNDNETFLKKYVEIARHPYFAPPELLFFAKRYKAFTCCOADAACACLLP 180
QY 241 KLDELDEGKASAKORLKASLOKFGRAFKAWAVARLSQFPKAEFAEYSKLVTDLTK 300
DB 181 KLDELDEGKASAKORLKASLOKFGRAFKAWAVARLSQFPKAEFAEYSKLVTDLTK 240
QY 301 VHTCCHGDLLECADRADLAKYICENODSISSKLKECCCKPLLEKSHCIAEVNDMPA 360
DB 241 VHTCCHGDLLECADRADLAKYICENODSISSKLKECCCKPLLEKSHCIAEVNDMPA 300
QY 361 DLPSLADPFVSKKVCCKNYAAKDVFLGMLYEYARRHPDYSVVLRLAKTYETLLEKC 420
DB 301 DLPSLADPFVSKKVCCKNYAAKDVFLGMLYEYARRHPDYSVVLRLAKTYETLLEKC 360
QY 421 CAADPHECYAKVFDEFKPLVEBPONLIKONCELFEOLAGYKFNALLVRYTKKVPQVST 480
DB 361 CAADPHECYAKVFDEFKPLVEBPONLIKONCELFEOLAGYKFNALLVRYTKKVPQVST 420
QY 481 PTLVEVSRNLGKVGSKCKHPKAPKPCADYLSVVLNQLCVLHEKTPVSDRVTKCTES 540
DB 421 PTLVEVSRNLGKVGSKCKHPKAPKPCADYLSVVLNQLCVLHEKTPVSDRVTKCTES 480
QY 541 LVNRRPCGSALVEVETVYKPEFNAETFEHADICTLSEKEROIKKOTALVELVHKPKAT 600
DB 481 LVNRRPCGSALVEVETVYKPEFNAETFEHADICTLSEKEROIKKOTALVELVHKPKAT 540
QY 601 KEQLKAVMDPFAAFVEKCCKADDEKTCFAEFGKLVAAASQALGL 645
DB 541 KEQLKAVMDPFAAFVEKCCKADDEKTCFAEFGKLVAAASQALGL 585
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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 19, 2006, 12:29:13 ; Search time 136.055 Seconds
(without alignments)
1980.821 Million cell updates/sec

Title: US-10-775-180-447_COPY_30_674

Perfect score: 3417
Sequence: 1 HGEFTSDVSSYLEGQAAK.....TCFAEKGKLVAAASQALGL 645

Scoring table: BIOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA Main:*

- 1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
- 2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
- 3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
- 4: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
- 5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
- 6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	* Query Match	Length	ID	Description
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2	3417	100.0	662	5	US-10-775-204-1623 Sequence 1623, App
3	3417	100.0	663	5	US-10-775-180-600 Sequence 600, App
4	3417	100.0	663	5	US-10-775-204-1609 Sequence 1609, App
5	3417	100.0	664	5	US-10-775-180-598 Sequence 598, App
6	3417	100.0	664	5	US-10-775-204-1607 Sequence 1607, App
7	3417	100.0	668	5	US-10-775-180-609 Sequence 609, App
8	3417	100.0	668	5	US-10-775-204-1621 Sequence 1621, App
9	3417	100.0	669	5	US-10-775-180-419 Sequence 419, App
10	3417	100.0	669	5	US-10-775-204-1231 Sequence 1231, App
11	3417	100.0	674	5	US-10-775-180-447 Sequence 447, App
12	3417	100.0	674	5	US-10-775-204-1280 Sequence 1280, App
13	3417	100.0	730	5	US-10-775-180-610 Sequence 610, App
14	3417	100.0	730	5	US-10-775-204-1622 Sequence 1622, App
15	3417	99.8	662	5	US-10-775-180-614 Sequence 614, App
16	3417	99.8	662	5	US-10-775-204-1626 Sequence 1626, App
17	3417	99.8	663	5	US-10-775-180-601 Sequence 601, App
18	3417	99.8	663	5	US-10-775-204-1610 Sequence 1610, App
19	3417	99.8	664	5	US-10-775-180-599 Sequence 599, App
20	3417	99.8	664	5	US-10-775-204-1608 Sequence 1608, App
21	3417	99.8	668	5	US-10-775-180-613 Sequence 613, App
22	3417	99.8	668	5	US-10-775-204-1625 Sequence 1625, App
23	3417	99.8	669	5	US-10-775-180-425 Sequence 425, App
24	3417	99.8	669	5	US-10-775-204-1237 Sequence 1237, App
25	3417	99.8	730	5	US-10-775-180-612 Sequence 612, App
26	3417	99.8	730	5	US-10-775-204-1624 Sequence 1624, App
27	3405	99.6	669	5	US-10-775-180-420 Sequence 420, App

28	3405	99.6	669	5	US-10-775-180-421 Sequence 421, App
29	3405	99.6	669	5	US-10-775-180-423 Sequence 423, App
30	3405	99.6	669	5	US-10-775-180-424 Sequence 424, App
31	3405	99.6	669	5	US-10-775-204-1232 Sequence 1232, App
32	3405	99.6	669	5	US-10-775-204-1233 Sequence 1233, App
33	3405	99.6	669	5	US-10-775-204-1235 Sequence 1235, App
34	3405	99.6	669	5	US-10-775-204-1236 Sequence 1236, App
35	3397	99.4	667	5	US-10-775-180-422 Sequence 422, App
36	3397	99.4	667	5	US-10-775-204-1234 Sequence 1234, App
37	3265	95.6	639	5	US-10-775-180-131 Sequence 131, App
38	3265	95.6	639	5	US-10-775-204-417 Sequence 417, App
39	3259	95.4	639	5	US-10-775-180-129 Sequence 129, App
40	3259	95.4	639	5	US-10-775-204-414 Sequence 414, App
41	3259	95.4	700	5	US-10-775-204-1620 Sequence 1620, App
42	3250.5	95.1	654	5	US-10-775-180-574 Sequence 574, App
43	3250.5	95.1	654	5	US-10-775-204-1559 Sequence 1559, App
44	3248	95.1	655	5	US-10-775-180-623 Sequence 623, App
45	3248	95.1	655	5	US-10-775-204-1640 Sequence 1640, App

ALIGNMENTS

RESULT 1
US-10-775-180-611
Sequence 611, Application US/10775180
Publication No. US20050054570A1
GENERAL INFORMATION:
APPLICANT: Rosen, Craig A.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: P574
CURRENT APPLICATION NUMBER: US/10/775,180
CURRENT FILING DATE: 2004-02-11
PRIOR APPLICATION NUMBER: PCT/US02/40892
PRIOR FILING DATE: 2002-12-23
PRIOR APPLICATION NUMBER: 60/341,811
PRIOR FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 60/360,000
PRIOR FILING DATE: 2002-02-28
PRIOR APPLICATION NUMBER: 60/378,950
PRIOR FILING DATE: 2002-05-10
PRIOR APPLICATION NUMBER: 60/398,008
PRIOR FILING DATE: 2002-07-24
PRIOR APPLICATION NUMBER: 60/411,355
PRIOR FILING DATE: 2002-09-18
PRIOR APPLICATION NUMBER: 60/414,984
PRIOR FILING DATE: 2002-10-02
PRIOR APPLICATION NUMBER: 60/417,611
PRIOR FILING DATE: 2002-10-11
PRIOR APPLICATION NUMBER: 60/420,246
PRIOR FILING DATE: 2002-10-23
PRIOR APPLICATION NUMBER: 60/423,623
PRIOR FILING DATE: 2002-11-05
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 858
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 611
LENGTH: 662
TYPE: PRT
ORGANISM: Homo sapiens
US-10-775-180-611
Query Match 100.0%; Score 3417; DB 5; Length 662;
Best Local Similarity 100.0%; Pred. No. 3.6e-259; Indels 0; Gaps 0;
Matches 645; Conservative 0; Mismatches 0

QY 1 HGEFTSDVSSYLEGQAAKPTAMLYKGRHGEFTSDVSSYLEGQAAKPTAMLYKGR 60
DB 18 HGEFTSDVSSYLEGQAAKPTAMLYKGRHGEFTSDVSSYLEGQAAKPTAMLYKGR 77
QY 61 DAHSEVAHFKDVGSENFALVLIAPAOYLQCPFEDHVKLVNEVTEFAKTCVADESAAE 120

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Db      DAHSEVAFHFKDILGEENFKALVLIAPAOYLQCCPEEDHVKLVNEVTEFAKTCVADBSAE 137
QY      121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNECFLOHKDNDPNLRLVLRPEV 180
        138 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNECFLOHKDNDPNLRLVLRPEV 197
QY      181 DVNCTAFHNDNEETFLKKYLYEIRARHPFYAPBELFFPAKRYKAAFTCCQAADKACLLP 240
        198 DVNCTAFHNDNEETFLKKYLYEIRARHPFYAPBELFFPAKRYKAAFTCCQAADKACLLP 257
Db      241 KDELDEBEGKASAKORLKCASLOKFGERAFKAAVAARLSORPPKAEFAVSKLVTDLTK 300
        258 KDELDEBEGKASAKORLKCASLOKFGERAFKAAVAARLSORPPKAEFAVSKLVTDLTK 317
QY      301 VHTCECHGDLLEGCADRADLAKYICENODSISKLKCECKEPLLEKSHCIAEYENDMPA 360
        318 VHTCECHGDLLEGCADRADLAKYICENODSISKLKCECKEPLLEKSHCIAEYENDMPA 377
Db      361 DLPSLAADPVESKDVCKNTAENADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 420
        378 DLPSLAADPVESKDVCKNTAENADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 437
QY      421 CAADPHECYAKYFDEKPLVEBPONLIKONCELFEOLGSKYKQNALVYTKKVPQVST 480
        438 CAADPHECYAKYFDEKPLVEBPONLIKONCELFEOLGSKYKQNALVYTKKVPQVST 497
Db      481 PTLVEVSRNIGKVGSKCKKPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 540
        498 PTLVEVSRNIGKVGSKCKKPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 557
QY      541 LVNRRPCFSALVEDETYVPKEFNAETFTFHADICTLSEKROIKKOTALVELVYKHKPKAT 600
        558 LVNRRPCFSALVEDETYVPKEFNAETFTFHADICTLSEKROIKKOTALVELVYKHKPKAT 617
Db      601 KEQLKAVMDPFAFVEKCKCADDKETCFABEGKKLVAAASQAALGL 645
        618 KEQLKAVMDPFAFVEKCKCADDKETCFABEGKKLVAAASQAALGL 662

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RESULT 2

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US-10-775-204-1623
; Sequence 1623, Application US/10775204
; Publication No. US2005018664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: P564
; CURRENT APPLICATION NUMBER: US/10/775,204
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.

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; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1623
; LENGTH: 662
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-204-1623

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Query Match      100.0%; Score 3417; DB 5; Length 662;
Best Local Similarity 100.0%; Pred. No. 3,6e-259;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY      1 HGEGTTSVSVSYLBEQAAKEFTAMLVKGRHGGTTSVSVSYLBEQAAKEFTAMLVKGR 60
        18 HGGGTTSVSVSYLBEQAAKEFTAMLVKGRHGGTTSVSVSYLBEQAAKEFTAMLVKGR 77
Db      61 DAHSEVAFHFKDILGEENFKALVLIAPAOYLQCCPEEDHVKLVNEVTEFAKTCVADBSAE 120
        78 DAHSEVAFHFKDILGEENFKALVLIAPAOYLQCCPEEDHVKLVNEVTEFAKTCVADBSAE 137
QY      121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNECFLOHKDNDPNLRLVLRPEV 180
        138 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOBERNECFLOHKDNDPNLRLVLRPEV 197
QY      181 DVNCTAFHNDNEETFLKKYLYEIRARHPFYAPBELFFPAKRYKAAFTCCQAADKACLLP 240
        198 DVNCTAFHNDNEETFLKKYLYEIRARHPFYAPBELFFPAKRYKAAFTCCQAADKACLLP 257
Db      241 KDELDEBEGKASAKORLKCASLOKFGERAFKAAVAARLSORPPKAEFAVSKLVTDLTK 300
        258 KDELDEBEGKASAKORLKCASLOKFGERAFKAAVAARLSORPPKAEFAVSKLVTDLTK 317
QY      301 VHTCECHGDLLEGCADRADLAKYICENODSISKLKCECKEPLLEKSHCIAEYENDMPA 360
        318 VHTCECHGDLLEGCADRADLAKYICENODSISKLKCECKEPLLEKSHCIAEYENDMPA 377
Db      361 DLPSLAADPVESKDVCKNTAENADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 420
        378 DLPSLAADPVESKDVCKNTAENADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 437
QY      421 CAADPHECYAKYFDEKPLVEBPONLIKONCELFEOLGSKYKQNALVYTKKVPQVST 480
        438 CAADPHECYAKYFDEKPLVEBPONLIKONCELFEOLGSKYKQNALVYTKKVPQVST 497
Db      481 PTLVEVSRNIGKVGSKCKKPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 540
        498 PTLVEVSRNIGKVGSKCKKPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 557
QY      541 LVNRRPCFSALVEDETYVPKEFNAETFTFHADICTLSEKROIKKOTALVELVYKHKPKAT 600
        558 LVNRRPCFSALVEDETYVPKEFNAETFTFHADICTLSEKROIKKOTALVELVYKHKPKAT 617
Db      601 KEQLKAVMDPFAFVEKCKCADDKETCFABEGKKLVAAASQAALGL 645
        618 KEQLKAVMDPFAFVEKCKCADDKETCFABEGKKLVAAASQAALGL 662

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RESULT 3

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US-10-775-180-600
; Sequence 600, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: P574
; CURRENT APPLICATION NUMBER: US/10/775,180
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000

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; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 600
; LENGTH: 663
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-600

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Query Match      100.0%; Score 3417; DB 5; Length 663;
Best Local Similarity 100.0%; Pred. No. 3.6e-259;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 HGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGR 60
DB 19 HGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGR 78
QY 61 DAHSEVAHRRPKDAGEENFKALVLIAPAOYLQCCPEFDHYKLVNEVTEPAKTCVADESAAE 120
DB 79 DAHSEVAHRRPKDAGEENFKALVLIAPAOYLQCCPEFDHYKLVNEVTEPAKTCVADESAAE 138
QY 121 NCDSKLTLPFGDKCTVAATLRETYGEMADCCAKOPEBNECFLOHKDNPMLPRLVREPV 180
DB 139 NCDSKLTLPFGDKCTVAATLRETYGEMADCCAKOPEBNECFLOHKDNPMLPRLVREPV 198
QY 181 DVMCTAFHDMNETFLKTYLVEIARRHPFYAPBELLFPAKRYKAAPTECCOAAADKAACLLP 240
DB 199 DVMCTAFHDMNETFLKTYLVEIARRHPFYAPBELLFPAKRYKAAPTECCOAAADKAACLLP 258
QY 241 KLDELRLDEGKASSAKORLKCSLQKFGERRAFKAAVAARLSORFPKAFPAEYSKLVTDLTG 300
DB 259 KLDELRLDEGKASSAKORLKCSLQKFGERRAFKAAVAARLSORFPKAFPAEYSKLVTDLTG 318
QY 301 VHTTECHDLEGCADRDADLAKYICENODSISKLKCECEKPLEKSHCIAEVENDEMPA 360
DB 319 VHTTECHDLEGCADRDADLAKYICENODSISKLKCECEKPLEKSHCIAEVENDEMPA 378
QY 361 DLPSLAADFVESKDVCKNVAEAKOVFLGMFLYEYARRHPDYSVVLRLAKTYETTTLEKC 420
DB 379 DLPSLAADFVESKDVCKNVAEAKOVFLGMFLYEYARRHPDYSVVLRLAKTYETTTLEKC 438
QY 421 CAADPHCECYAKVPDEFKPLVEEPONLIKONCELFQGEYKFNALLVRYTKVPQVST 480
DB 439 CAADPHCECYAKVPDEFKPLVEEPONLIKONCELFQGEYKFNALLVRYTKVPQVST 498
QY 481 PTLVEVSRLGKVGSKCKHPRAKMPCABEDYLSVVLNOLCVLHKTPTVSDKVTCTES 540
DB 499 PTLVEVSRLGKVGSKCKHPRAKMPCABEDYLSVVLNOLCVLHKTPTVSDKVTCTES 558
QY 541 LVNRPPCSALEVDETYVPKEFNATFTFHADICTLSEKERQIKKQTLAVELVKHPRAT 600
DB 559 LVNRPPCSALEVDETYVPKEFNATFTFHADICTLSEKERQIKKQTLAVELVKHPRAT 618
QY 601 KEQLAAVMDPFAAFVEKCKKADKCTCPAEBGSKLVAAASQAALGL 645
DB 619 KEQLAAVMDPFAAFVEKCKKADKCTCPAEBGSKLVAAASQAALGL 663

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RESULT 4
US-10-775-204-1609
; Sequence 1609, Application US/10775204
; Publication No. US20050186664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: P564
; CURRENT APPLICATION NUMBER: US/10/775,204
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1609
; LENGTH: 663
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-204-1609

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Query Match      100.0%; Score 3417; DB 5; Length 663;
Best Local Similarity 100.0%; Pred. No. 3.6e-259;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 HGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGR 60
DB 19 HGEFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGR 78
QY 61 DAHSEVAHRRPKDAGEENFKALVLIAPAOYLQCCPEFDHYKLVNEVTEPAKTCVADESAAE 120
DB 79 DAHSEVAHRRPKDAGEENFKALVLIAPAOYLQCCPEFDHYKLVNEVTEPAKTCVADESAAE 138
QY 121 NCDSKLTLPFGDKCTVAATLRETYGEMADCCAKOPEBNECFLOHKDNPMLPRLVREPV 180
DB 139 NCDSKLTLPFGDKCTVAATLRETYGEMADCCAKOPEBNECFLOHKDNPMLPRLVREPV 198
QY 181 DVMCTAFHDMNETFLKTYLVEIARRHPFYAPBELLFPAKRYKAAPTECCOAAADKAACLLP 240
DB 199 DVMCTAFHDMNETFLKTYLVEIARRHPFYAPBELLFPAKRYKAAPTECCOAAADKAACLLP 258
QY 241 KLDELRLDEGKASSAKORLKCSLQKFGERRAFKAAVAARLSORFPKAFPAEYSKLVTDLTG 300
DB 259 KLDELRLDEGKASSAKORLKCSLQKFGERRAFKAAVAARLSORFPKAFPAEYSKLVTDLTG 318
QY 301 VHTTECHDLEGCADRDADLAKYICENODSISKLKCECEKPLEKSHCIAEVENDEMPA 360
DB 319 VHTTECHDLEGCADRDADLAKYICENODSISKLKCECEKPLEKSHCIAEVENDEMPA 378
QY 361 DLPSLAADFVESKDVCKNVAEAKOVFLGMFLYEYARRHPDYSVVLRLAKTYETTTLEKC 420
DB 379 DLPSLAADFVESKDVCKNVAEAKOVFLGMFLYEYARRHPDYSVVLRLAKTYETTTLEKC 438

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QY 421 CAADPHCEYAKYFDEFKPLVEBPONL IKONCELFEOLGSEYKQNALVRYTKVPQVST 480
DB 439 CAADPHCEYAKYFDEFKPLVEBPONL IKONCELFEOLGSEYKQNALVRYTKVPQVST 498
QY 481 PTLVEYSRNLGKYGKSCCKHPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 540
DB 499 PTLVEYSRNLGKYGKSCCKHPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 558
QY 541 LVNRRPCFSALVEDETVPEPFNAETFTFHADICTLSEKERQIKKOTALVELVHKPKAT 600
DB 559 LVNRRPCFSALVEDETVPEPFNAETFTFHADICTLSEKERQIKKOTALVELVHKPKAT 618
QY 601 KEOLKAVMDPFAAFVEKCKCKADDKETCFABEGKLVAAASQALGL 645
DB 619 KEOLKAVMDPFAAFVEKCKCKADDKETCFABEGKLVAAASQALGL 663

RESULT 5
US-10-775-180-598
; Sequence 598, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF574
; CURRENT APPLICATION NUMBER: US/10/775,180
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 598
; LENGTH: 664
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-598

Query Match 100.0%; Score 3417; DB 5; Length 664;
Best Local Similarity 100.0%; Pred. No. 3,6e-259;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HGEGTFTSDVSSYLEGOAAKEFIAMLVKGRHGEFTFTSDVSSYLEGOAAKEFIAMLVKGR 60
DB 20 HGEGTFTSDVSSYLEGOAAKEFIAMLVKGRHGEFTFTSDVSSYLEGOAAKEFIAMLVKGR 79
QY 61 DAHSEVAHRKDKLGEENFKALVLIAPAOYLQCCPFEDHVKLVNVEFATKCVADESAE 120
DB 80 DAHSEVAHRKDKLGEENFKALVLIAPAOYLQCCPFEDHVKLVNVEFATKCVADESAE 139
QY 121 NCDKSLHTLFDGDKCTVAATLTAEYTGEMADCCAKOPERNNEFLQHKDNPVLRLVAPREV 180
DB 140 NCDKSLHTLFDGDKCTVAATLTAEYTGEMADCCAKOPERNNEFLQHKDNPVLRLVAPREV 199
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QY 181 DVNCTAFHNDNEETFLKKYL YEIARRHPYVABELLEFPARRYKAFTTECCQAADKAACLLP 240
DB 200 DVNCTAFHNDNEETFLKKYL YEIARRHPYVABELLEFPARRYKAFTTECCQAADKAACLLP 259
QY 241 KDELDELDEKASAKRRLCASIQKGERAPFAMANAARLSORPEPKAFEVSRLVTDLTK 300
DB 260 KDELDELDEKASAKRRLCASIQKGERAPFAMANAARLSORPEPKAFEVSRLVTDLTK 319
QY 301 VHTTECGDLLEACADRADLAKYICENODISSEKLAKECEKPLBESHCI AEVNDENMA 360
DB 320 VHTTECGDLLEACADRADLAKYICENODISSEKLAKECEKPLBESHCI AEVNDENMA 379
QY 361 DLPSLAADPVESKDVCKNTAEAKDVF LGMFLYFARRHPDYSVVLLRLAKYETTLK 420
DB 380 DLPSLAADPVESKDVCKNTAEAKDVF LGMFLYFARRHPDYSVVLLRLAKYETTLK 439
QY 421 CAADPHCEYAKYFDEFKPLVEBPONL IKONCELFEOLGSEYKQNALVRYTKVPQVST 480
DB 440 CAADPHCEYAKYFDEFKPLVEBPONL IKONCELFEOLGSEYKQNALVRYTKVPQVST 499
QY 481 PTLVEYSRNLGKYGKSCCKHPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 540
DB 500 PTLVEYSRNLGKYGKSCCKHPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRYTKCTES 559
QY 541 LVNRRPCFSALVEDETVPEPFNAETFTFHADICTLSEKERQIKKOTALVELVHKPKAT 600
DB 560 LVNRRPCFSALVEDETVPEPFNAETFTFHADICTLSEKERQIKKOTALVELVHKPKAT 619
QY 601 KEOLKAVMDPFAAFVEKCKCKADDKETCFABEGKLVAAASQALGL 645
DB 620 KEOLKAVMDPFAAFVEKCKCKADDKETCFABEGKLVAAASQALGL 664
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RESULT 6
US-10-775-204-1607
; Sequence 1607, Application US/10775204
; Publication No. US2005018664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF564
; CURRENT APPLICATION NUMBER: US/10/775,204
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1607
; LENGTH: 664
; TYPE: PRT
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ORGANISM: Homo sapiens
US-10-775-204-1607

Query Match 100.0%; Score 3417; DB 5; Length 664;

Best Local Similarity 100.0%; Pred. No. 3,6e-259; Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 HGEFTSDVSYLGGAAKEFIAMLVKGRHGEFTSDVSYLGGAAKEFIAMLVKGR 60
DB 20 HGEFTSDVSYLGGAAKEFIAMLVKGRHGEFTSDVSYLGGAAKEFIAMLVKGR 79
QY 61 DAHSEVAHFKDGEENFKALVLIAPQYLQCCPEFDHVKLVNEVEFAKTCVADSSAE 120
DB 80 DAHSEVAHFKDGEENFKALVLIAPQYLQCCPEFDHVKLVNEVEFAKTCVADSSAE 139
QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNECFLOHKDNPMLPRLVREPV 180
DB 140 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNECFLOHKDNPMLPRLVREPV 199
QY 181 DVMCTAHDNEETFLKYLVIARRHPYFAPBELLFPAKRYKAAPTECCOADAACALP 240
DB 200 DVMCTAHDNEETFLKYLVIARRHPYFAPBELLFPAKRYKAAPTECCOADAACALP 259
QY 241 KLDELDEGKASAKORLKASLOKGERAFKANAVALSORPPKAEFAVSKLVDTLTK 300
DB 260 KLDELDEGKASAKORLKASLOKGERAFKANAVALSORPPKAEFAVSKLVDTLTK 319
QY 301 VHTCECHGDLLECADRRADLAKYICENODISSKLEKCECKPYLEKSHCIAEYNDMPA 360
DB 320 VHTCECHGDLLECADRRADLAKYICENODISSKLEKCECKPYLEKSHCIAEYNDMPA 379
QY 361 DLPSLAADPVESKDVCKNVAEADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 420
DB 380 DLPSLAADPVESKDVCKNVAEADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 439
QY 421 CAADPHECYAKVDEFEKPLVEBPONLIKONCELFEOLGKRYKONALLVYTKVPOVST 480
DB 440 CAADPHECYAKVDEFEKPLVEBPONLIKONCELFEOLGKRYKONALLVYTKVPOVST 499
QY 481 PTLVEVSRLNGKVSCKCKHPEAKRMPCABDYLSVNLQCLVLEKTPVSDRYTKCTES 540
DB 500 PTLVEVSRLNGKVSCKCKHPEAKRMPCABDYLSVNLQCLVLEKTPVSDRYTKCTES 559
QY 541 LVNRRPCFSALVEDETYVPKEFNAETFFHADICTLSKEKROIKKQTLVLYLVGHKPKAT 600
DB 560 LVNRRPCFSALVEDETYVPKEFNAETFFHADICTLSKEKROIKKQTLVLYLVGHKPKAT 619
QY 601 KEQLKAVMDPFAAFVEKCCAKADDEKTCFAEBSGKLVAAASQAAALGL 645
DB 620 KEQLKAVMDPFAAFVEKCCAKADDEKTCFAEBSGKLVAAASQAAALGL 664

```

RESULT 7

US-10-775-180-609
Sequence 609, Application US/10775180
Publication No. US20050054570A1
GENERAL INFORMATION:
APPLICANT: Rosen, Craig A.
APPLICANT: Haselcine, William A.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PFS74
CURRENT APPLICATION NUMBER: US/10/775,180
CURRENT FILING DATE: 2004-02-11
PRIOR APPLICATION NUMBER: PCT/US02/40892
PRIOR FILING DATE: 2002-12-23
PRIOR APPLICATION NUMBER: 60/341,811
PRIOR FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 60/360,000
PRIOR FILING DATE: 2002-02-28
PRIOR APPLICATION NUMBER: 60/378,950
PRIOR FILING DATE: 2002-05-10
PRIOR APPLICATION NUMBER: 60/396,008
PRIOR FILING DATE: 2002-07-24

PRIOR APPLICATION NUMBER: 60/411,355
PRIOR FILING DATE: 2002-09-18
PRIOR APPLICATION NUMBER: 60/414,984
PRIOR FILING DATE: 2002-10-02
PRIOR APPLICATION NUMBER: 60/417,611
PRIOR FILING DATE: 2002-10-11
PRIOR APPLICATION NUMBER: 60/420,246
PRIOR FILING DATE: 2002-10-23
PRIOR APPLICATION NUMBER: 60/423,623
PRIOR FILING DATE: 2002-11-05
Remaining Prior Application data removed - See File Wrapper or PAM.
NUMBER OF SEQ ID NOS: 858
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 609
LENGTH: 668
TYPE: PRT
ORGANISM: Homo sapiens
US-10-775-180-609

Query Match 100.0%; Score 3417; DB 5; Length 668;

Best Local Similarity 100.0%; Pred. No. 3,6e-259; Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 HGEFTSDVSYLGGAAKEFIAMLVKGRHGEFTSDVSYLGGAAKEFIAMLVKGR 60
DB 24 HGEFTSDVSYLGGAAKEFIAMLVKGRHGEFTSDVSYLGGAAKEFIAMLVKGR 83
QY 61 DAHSEVAHFKDGEENFKALVLIAPQYLQCCPEFDHVKLVNEVEFAKTCVADSSAE 120
DB 84 DAHSEVAHFKDGEENFKALVLIAPQYLQCCPEFDHVKLVNEVEFAKTCVADSSAE 143
QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNECFLOHKDNPMLPRLVREPV 180
DB 144 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPERNECFLOHKDNPMLPRLVREPV 203
QY 181 DVMCTAHDNEETFLKYLVIARRHPYFAPBELLFPAKRYKAAPTECCOADAACALP 240
DB 204 DVMCTAHDNEETFLKYLVIARRHPYFAPBELLFPAKRYKAAPTECCOADAACALP 263
QY 241 KLDELDEGKASAKORLKASLOKGERAFKANAVALSORPPKAEFAVSKLVDTLTK 300
DB 264 KLDELDEGKASAKORLKASLOKGERAFKANAVALSORPPKAEFAVSKLVDTLTK 323
QY 301 VHTCECHGDLLECADRRADLAKYICENODISSKLEKCECKPYLEKSHCIAEYNDMPA 360
DB 324 VHTCECHGDLLECADRRADLAKYICENODISSKLEKCECKPYLEKSHCIAEYNDMPA 383
QY 361 DLPSLAADPVESKDVCKNVAEADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 420
DB 384 DLPSLAADPVESKDVCKNVAEADVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 443
QY 421 CAADPHECYAKVDEFEKPLVEBPONLIKONCELFEOLGKRYKONALLVYTKVPOVST 480
DB 444 CAADPHECYAKVDEFEKPLVEBPONLIKONCELFEOLGKRYKONALLVYTKVPOVST 503
QY 481 PTLVEVSRLNGKVSCKCKHPEAKRMPCABDYLSVNLQCLVLEKTPVSDRYTKCTES 540
DB 504 PTLVEVSRLNGKVSCKCKHPEAKRMPCABDYLSVNLQCLVLEKTPVSDRYTKCTES 563
QY 541 LVNRRPCFSALVEDETYVPKEFNAETFFHADICTLSKEKROIKKQTLVLYLVGHKPKAT 600
DB 564 LVNRRPCFSALVEDETYVPKEFNAETFFHADICTLSKEKROIKKQTLVLYLVGHKPKAT 623
QY 601 KEQLKAVMDPFAAFVEKCCAKADDEKTCFAEBSGKLVAAASQAAALGL 645
DB 624 KEQLKAVMDPFAAFVEKCCAKADDEKTCFAEBSGKLVAAASQAAALGL 668

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RESULT 8

US-10-775-204-1621
Sequence 1621, Application US/10775204
Publication No. US2005018664A1
GENERAL INFORMATION:

```

; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PE564
; CURRENT APPLICATION NUMBER: US/10/775,204
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: Patentln Ver. 2.0
; SEQ ID NO 1621
; LENGTH: 668
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-204-1621

```

```

Query Match      100.0%; Score 3417; DB 5; Length 668;
Best Local Similarity 100.0%; Pred. No. 3,6e-259;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 HGEGETSDVSSYLEGOAAKEFIAMLVKGRHGEGETSDVSSYLEGOAAKEFIAMLVKGR 60
DB 24 HGEGETSDVSSYLEGOAAKEFIAMLVKGRHGEGETSDVSSYLEGOAAKEFIAMLVKGR 83
QY 61 DAHSEVAHRFKDLGSENFALVLIAPAYLQCCPFEDHVKLVNEVTEFAKTCVADESAB 120
DB 84 DAHSEVAHRFKDLGSENFALVLIAPAYLQCCPFEDHVKLVNEVTEFAKTCVADESAB 143
QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPRNECFLOHKDNDNPLRLVPRPV 180
DB 144 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPRNECFLOHKDNDNPLRLVPRPV 203
QY 181 DVNCTAFHNDERTFLKKYLYEIRARHPFYAPAPLFFAKRYKAFTCCOAAADKAACLP 240
DB 204 DVNCTAFHNDERTFLKKYLYEIRARHPFYAPAPLFFAKRYKAFTCCOAAADKAACLP 263
QY 241 KDELRLREBKASAKQKLCASLOKGEERAFKAAVAVRLSORPFAFAVSVKLVNDLTK 300
DB 264 KDELRLREBKASAKQKLCASLOKGEERAFKAAVAVRLSORPFAFAVSVKLVNDLTK 323
QY 301 VHTTECGHDLLECCADRADLAKYICENODSISKLKCCCEKPLLEKSHCIAEYENDMPA 360
DB 324 VHTTECGHDLLECCADRADLAKYICENODSISKLKCCCEKPLLEKSHCIAEYENDMPA 383
QY 361 DLPSLAADPYESKQVCKNVAEAKDVFGLMFLYEYARHPDYSVVLRLAKYETTLTK 420
DB 384 DLPSLAADPYESKQVCKNVAEAKDVFGLMFLYEYARHPDYSVVLRLAKYETTLTK 443
QY 421 CAADPHCEYAKVDEKPLVEBPONLIKONCELFEOLGSEYKPNALLVYTKVPQVST 480
DB 444 CAADPHCEYAKVDEKPLVEBPONLIKONCELFEOLGSEYKPNALLVYTKVPQVST 503

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QY 481 PTLVEVSRLGKVGSKCCCHPEAKMPCADYLSVTLNOLCVLHEKTPVSDRYTKCTES 540
DB 504 PTLVEVSRLGKVGSKCCCHPEAKMPCADYLSVTLNOLCVLHEKTPVSDRYTKCTES 563
QY 541 LVNRRCPSALNDEYTVKEPFAERTFHADICTLSEKEROIKKOTALVELVKHPKAT 600
DB 564 LVNRRCPSALNDEYTVKEPFAERTFHADICTLSEKEROIKKOTALVELVKHPKAT 623
QY 601 KEQLKAVMDFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 645
DB 624 KEQLKAVMDFAAFVEKCKKADDKETCPAEBGKULVAASQAALGL 668

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RESULT 9
US-10-775-180-419
; Sequence 419, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PE574
; CURRENT APPLICATION NUMBER: US/10/775,180
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: Patentln Ver. 2.0
; SEQ ID NO 419
; LENGTH: 669
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-419

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```

Query Match      100.0%; Score 3417; DB 5; Length 669;
Best Local Similarity 100.0%; Pred. No. 3,6e-259;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 HGEGETSDVSSYLEGOAAKEFIAMLVKGRHGEGETSDVSSYLEGOAAKEFIAMLVKGR 60
DB 25 HGEGETSDVSSYLEGOAAKEFIAMLVKGRHGEGETSDVSSYLEGOAAKEFIAMLVKGR 84
QY 61 DAHSEVAHRFKDLGSENFALVLIAPAYLQCCPFEDHVKLVNEVTEFAKTCVADESAB 120
DB 85 DAHSEVAHRFKDLGSENFALVLIAPAYLQCCPFEDHVKLVNEVTEFAKTCVADESAB 144
QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPRNECFLOHKDNDNPLRLVPRPV 180
DB 145 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEPRNECFLOHKDNDNPLRLVPRPV 204
QY 181 DVNCTAFHNDERTFLKKYLYEIRARHPFYAPAPLFFAKRYKAFTCCOAAADKAACLP 240
DB 205 DVNCTAFHNDERTFLKKYLYEIRARHPFYAPAPLFFAKRYKAFTCCOAAADKAACLP 264

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Qy 241 KDLDELDEGKASSAKORLKASLOKFGERAFAKMAVARLSORPPKAEFAVSCLVTDLTK 300
| | | | |
Db 265 KDLDELDEGKASSAKORLKASLOKFGERAFAKMAVARLSORPPKAEFAVSCLVTDLTK 324
Qy 301 VHTTECHGDLLECADRADLAKYICENODISSKLEKCEKPLEKSHCIAEVENDEMPA 360
| | | | |
Db 325 VHTTECHGDLLECADRADLAKYICENODISSKLEKCEKPLEKSHCIAEVENDEMPA 384
Qy 361 DLPSLADPFVESHKOVCKNVAEAKOVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 420
| | | | |
Db 385 DLPSLADPFVESHKOVCKNVAEAKOVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 444
Qy 421 CAADPHCYAKYFDEKPLVEBPONLIKONCELFEGOLGEYKFNALLVYTKKVPQVST 480
| | | | |
Db 445 CAADPHCYAKYFDEKPLVEBPONLIKONCELFEGOLGEYKFNALLVYTKKVPQVST 504
Qy 481 PTLVEVSRLGKVGSKCKHPEAKRMPCAEDYLSVNLQCLVHEKTPVSDRYTKCTES 540
| | | | |
Db 505 PTLVEVSRLGKVGSKCKHPEAKRMPCAEDYLSVNLQCLVHEKTPVSDRYTKCTES 564
Qy 541 LVNRRPCEFSALVEDETVVPKEFNAETTFHADICTLSEKROIKKOTALVELVGHKPKAT 600
| | | | |
Db 565 LVNRRPCEFSALVEDETVVPKEFNAETTFHADICTLSEKROIKKOTALVELVGHKPKAT 624
Qy 601 KEOLKAVMDPFAFVEKCKKADKCTCFABEGKKLVAAQAALGL 645
| | | | |
Db 625 KEOLKAVMDPFAFVEKCKKADKCTCFABEGKKLVAAQAALGL 669

```

RESULT 10

```

US-10-775-204-1231
; Sequence 1231, Application US/10775204
; Publication No. US2005018664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: P564
; CURRENT APPLICATION NUMBER: US/10/775,204
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1231
; LENGTH: 669
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-775-204-1231

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Query Match Best Local Similarity 100.0%; Score 3417; DB 5; Length 669; 100.0%; Pred. No. 3.6e-259;

```

Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 HEGTFTSDVSYLLEGOAAKEFIAMLVKGRHGEFTSDVSYLLEGOAAKEFIAMLVKGR 60
| | | | |
Db 25 HEGTFTSDVSYLLEGOAAKEFIAMLVKGRHGEFTSDVSYLLEGOAAKEFIAMLVKGR 84
Qy 61 DAKSEVAHRFKDLGSENFALVLIAPAOYLQCCPEBDHYKLVNEYTEFAKTCVADBSAE 120
| | | | |
Db 85 DAKSEVAHRFKDLGSENFALVLIAPAOYLQCCPEBDHYKLVNEYTEFAKTCVADBSAE 144
Qy 121 NCDKSLHTLFGDLCTVAATLRETYGEMADCCAOGEERNECFLOHODNPNLRLVLRPEV 180
| | | | |
Db 145 NCDKSLHTLFGDLCTVAATLRETYGEMADCCAOGEERNECFLOHODNPNLRLVLRPEV 204
Qy 181 DVNCTAFHDNEETFLKKYLYEIRRRPYFYAPLILFPKRYKKAFTTECCOAAADKAACLP 240
| | | | |
Db 205 DVNCTAFHDNEETFLKKYLYEIRRRPYFYAPLILFPKRYKKAFTTECCOAAADKAACLP 264
Qy 241 KDLDELDEGKASSAKORLKASLOKFGERAFAKMAVARLSORPPKAEFAVSCLVTDLTK 300
| | | | |
Db 265 KDLDELDEGKASSAKORLKASLOKFGERAFAKMAVARLSORPPKAEFAVSCLVTDLTK 324
Qy 301 VHTTECHGDLLECADRADLAKYICENODISSKLEKCEKPLEKSHCIAEVENDEMPA 360
| | | | |
Db 325 VHTTECHGDLLECADRADLAKYICENODISSKLEKCEKPLEKSHCIAEVENDEMPA 384
Qy 361 DLPSLADPFVESHKOVCKNVAEAKOVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 420
| | | | |
Db 385 DLPSLADPFVESHKOVCKNVAEAKOVFLGMFLYEYARRHPDYSVLLRLAKTYETTLK 444
Qy 421 CAADPHCYAKYFDEKPLVEBPONLIKONCELFEGOLGEYKFNALLVYTKKVPQVST 480
| | | | |
Db 445 CAADPHCYAKYFDEKPLVEBPONLIKONCELFEGOLGEYKFNALLVYTKKVPQVST 504
Qy 481 PTLVEVSRLGKVGSKCKHPEAKRMPCAEDYLSVNLQCLVHEKTPVSDRYTKCTES 540
| | | | |
Db 505 PTLVEVSRLGKVGSKCKHPEAKRMPCAEDYLSVNLQCLVHEKTPVSDRYTKCTES 564
Qy 541 LVNRRPCEFSALVEDETVVPKEFNAETTFHADICTLSEKROIKKOTALVELVGHKPKAT 600
| | | | |
Db 565 LVNRRPCEFSALVEDETVVPKEFNAETTFHADICTLSEKROIKKOTALVELVGHKPKAT 624
Qy 601 KEOLKAVMDPFAFVEKCKKADKCTCFABEGKKLVAAQAALGL 645
| | | | |
Db 625 KEOLKAVMDPFAFVEKCKKADKCTCFABEGKKLVAAQAALGL 669

```

RESULT 11

```

US-10-775-180-447
; Sequence 447, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: P574
; CURRENT APPLICATION NUMBER: US/10/775,180
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611

```


; PRIOR FILING DATE: 2002-10-11
 ; PRIOR APPLICATION NUMBER: 60/420,246
 ; PRIOR FILING DATE: 2002-10-23
 ; PRIOR APPLICATION NUMBER: 60/423,623
 ; PRIOR FILING DATE: 2002-11-05
 ; Remaining Prior Application data removed - See File Wrapper or PALM.
 ; NUMBER OF SEQ ID NOS: 858
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 447
 ; LENGTH: 674
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-10-775-180-447

Query Match 100.0%; Score 3417; DB 5; Length 674;
 Best Local Similarity 100.0%; Pred. No. 3.7e-259;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	HGGGTFTSDVSYL	EGQAAKEFIAMLVKGRHGGTFTSDVSYL	EGQAAKEFIAMLVKGR	60
DB	30	HGGGTFTSDVSYL	EGQAAKEFIAMLVKGRHGGTFTSDVSYL	EGQAAKEFIAMLVKGR	89
QY	61	DAKSEVAFKPLGSENF	KALVLIAPQYLQCCPEPDHVKLVNEVTEFAKTCVADESAR	120	
DB	90	DAKSEVAFKPLGSENF	KALVLIAPQYLQCCPEPDHVKLVNEVTEFAKTCVADESAR	149	
QY	121	NCCKSLHTLFGDGLCTVA	TLRETYGEMADCCAKOEPRNECFLOHKDNDPNIPLVLRPEV	180	
DB	150	NCCKSLHTLFGDGLCTVA	TLRETYGEMADCCAKOEPRNECFLOHKDNDPNIPLVLRPEV	209	
QY	181	DVNCIAFHNDNEETFLK	KYIYIARRHPFYAPBLFFPAKRYKAAFTCCQAADKAACTLP	240	
DB	210	DVNCIAFHNDNEETFLK	KYIYIARRHPFYAPBLFFPAKRYKAAFTCCQAADKAACTLP	269	
QY	241	KDELDEBGASAKORL	KCASLOKFGERAFKAMAVARLSORPPKAFPAVSKLVTDLT	300	
DB	270	KDELDEBGASAKORL	KCASLOKFGERAFKAMAVARLSORPPKAFPAVSKLVTDLT	329	
QY	301	VHTECCGDLLECCAD	RADLAKYICENODSISSKLKECCCKPFLKESHCI	AEVNDMPA 360	
DB	330	VHTECCGDLLECCAD	RADLAKYICENODSISSKLKECCCKPFLKESHCI	AEVNDMPA 389	
QY	361	DLPSLADPFVESK	QVCKNTAEADVFLGMFLYIYARRHPDYSVLLRLAKYETTLK	420	
DB	390	DLPSLADPFVESK	QVCKNTAEADVFLGMFLYIYARRHPDYSVLLRLAKYETTLK	449	
QY	421	CAAADPHECYAK	VFDEPKPLVEBPONLIKONCELFEOIGERYKONALLVRYTKKVPQVST	509	
DB	450	CAAADPHECYAK	VFDEPKPLVEBPONLIKONCELFEOIGERYKONALLVRYTKKVPQVST	509	
QY	481	PTLVEVSRLGK	GVSKCKGKPEAKRMPCAEDYLSVVLNOLCVLHEKTPVSDRYTKCTES	540	
DB	510	PTLVEVSRLGK	GVSKCKGKPEAKRMPCAEDYLSVVLNOLCVLHEKTPVSDRYTKCTES	569	
QY	541	LNNRRCFSALEVD	ETVPKEFNAETFTPHADICTLSEKEROIKKOTALVELVGHKPKAT	600	
DB	570	LNNRRCFSALEVD	ETVPKEFNAETFTPHADICTLSEKEROIKKOTALVELVGHKPKAT	629	
QY	601	KEQLKAVMDPAA	FAVEKCKCAADKCTCPAEBGKKLVAAQSQAALGL	645	
DB	630	KEQLKAVMDPAA	FAVEKCKCAADKCTCPAEBGKKLVAAQSQAALGL	674	

RESULT 12
 US-10-775-204-1280
 ; Sequence 1280, Application US/10775204
 ; Publication No. US2005018664A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Rosen, Craig A.
 ; APPLICANT: Haseeltine, William A.
 ; APPLICANT: Balance, David J.
 ; APPLICANT: Turner, Andrew J.
 ; TITLE OF INVENTION: Albumin Fusion Proteins

; FILE REFERENCE: PF564
 ; CURRENT APPLICATION NUMBER: US/10/775,204
 ; CURRENT FILING DATE: 2004-02-11
 ; PRIOR APPLICATION NUMBER: 60/341,811
 ; PRIOR FILING DATE: 2001-12-21
 ; PRIOR APPLICATION NUMBER: 60/360,000
 ; PRIOR FILING DATE: 2002-02-28
 ; PRIOR APPLICATION NUMBER: 60/378,950
 ; PRIOR FILING DATE: 2002-05-10
 ; PRIOR APPLICATION NUMBER: 60/398,008
 ; PRIOR FILING DATE: 2002-07-24
 ; PRIOR APPLICATION NUMBER: 60/411,355
 ; PRIOR FILING DATE: 2002-09-18
 ; PRIOR APPLICATION NUMBER: 60/414,984
 ; PRIOR FILING DATE: 2002-10-02
 ; PRIOR APPLICATION NUMBER: 60/417,611
 ; PRIOR FILING DATE: 2002-10-11
 ; PRIOR APPLICATION NUMBER: 60/420,246
 ; PRIOR FILING DATE: 2002-10-23
 ; PRIOR APPLICATION NUMBER: 60/423,623
 ; PRIOR FILING DATE: 2002-11-05
 ; PRIOR APPLICATION NUMBER: 60/351,360
 ; Remaining Prior Application data removed - See File Wrapper or PALM.
 ; NUMBER OF SEQ ID NOS: 2222
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 1280
 ; LENGTH: 674
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-10-775-204-1280

Query Match 100.0%; Score 3417; DB 5; Length 674;
 Best Local Similarity 100.0%; Pred. No. 3.7e-259;
 Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	HGGGTFTSDVSYL	EGQAAKEFIAMLVKGRHGGTFTSDVSYL	EGQAAKEFIAMLVKGR	60
DB	30	HGGGTFTSDVSYL	EGQAAKEFIAMLVKGRHGGTFTSDVSYL	EGQAAKEFIAMLVKGR	89
QY	61	DAKSEVAFKPLGSENF	KALVLIAPQYLQCCPEPDHVKLVNEVTEFAKTCVADESAR	120	
DB	90	DAKSEVAFKPLGSENF	KALVLIAPQYLQCCPEPDHVKLVNEVTEFAKTCVADESAR	149	
QY	121	NCCKSLHTLFGDGLCTVA	TLRETYGEMADCCAKOEPRNECFLOHKDNDPNIPLVLRPEV	180	
DB	150	NCCKSLHTLFGDGLCTVA	TLRETYGEMADCCAKOEPRNECFLOHKDNDPNIPLVLRPEV	209	
QY	181	DVNCIAFHNDNEETFLK	KYIYIARRHPFYAPBLFFPAKRYKAAFTCCQAADKAACTLP	240	
DB	210	DVNCIAFHNDNEETFLK	KYIYIARRHPFYAPBLFFPAKRYKAAFTCCQAADKAACTLP	269	
QY	241	KDELDEBGASAKORL	KCASLOKFGERAFKAMAVARLSORPPKAFPAVSKLVTDLT	300	
DB	270	KDELDEBGASAKORL	KCASLOKFGERAFKAMAVARLSORPPKAFPAVSKLVTDLT	329	
QY	301	VHTECCGDLLECCAD	RADLAKYICENODSISSKLKECCCKPFLKESHCI	AEVNDMPA 360	
DB	330	VHTECCGDLLECCAD	RADLAKYICENODSISSKLKECCCKPFLKESHCI	AEVNDMPA 389	
QY	361	DLPSLADPFVESK	QVCKNTAEADVFLGMFLYIYARRHPDYSVLLRLAKYETTLK	420	
DB	390	DLPSLADPFVESK	QVCKNTAEADVFLGMFLYIYARRHPDYSVLLRLAKYETTLK	449	
QY	421	CAAADPHECYAK	VFDEPKPLVEBPONLIKONCELFEOIGERYKONALLVRYTKKVPQVST	480	
DB	450	CAAADPHECYAK	VFDEPKPLVEBPONLIKONCELFEOIGERYKONALLVRYTKKVPQVST	509	
QY	481	PTLVEVSRLGK	GVSKCKGKPEAKRMPCAEDYLSVVLNOLCVLHEKTPVSDRYTKCTES	540	
DB	510	PTLVEVSRLGK	GVSKCKGKPEAKRMPCAEDYLSVVLNOLCVLHEKTPVSDRYTKCTES	569	
QY	541	LNNRRCFSALEVD	ETVPKEFNAETFTPHADICTLSEKEROIKKOTALVELVGHKPKAT	600	

|||||
Db 570 LVNRRPCFSALVEDEYTPVPEFNAETFTFHADI CTISEKEROIKKOTALVELVGHKPKAT 629

Qy 601 KEOLKAVMDPFAAFVEKCCAKADKETCFABEGKKLVAAASQALGL 645
Db 630 KEOLKAVMDPFAAFVEKCCAKADKETCFABEGKKLVAAASQALGL 674

RESULT 13

US-10-775-180-610
; Sequence 610, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PFS74
; CURRENT APPLICATION NUMBER: US/10/775,180
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 610
; LENGTH: 730
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-610

Query Match 100.0%; Score 3417; DB 5; Length 730;
Best Local Similarity 100.0%; Pred. No. 4,1e-259;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGR 60
Db 86 HGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGR 145
Qy 61 DAHSEVARRFKDGEENFKALVLAFAQYLQCCPEFDHVKLVNVTFAFTCVADESAB 120
Db 146 DAHSEVARRFKDGEENFKALVLAFAQYLQCCPEFDHVKLVNVTFAFTCVADESAB 205
Qy 121 NCDKSLHTLFGDKCTVATLTRETYGEMADCCAKOPERNCEFLQKNDPNLPRLVREY 180
Db 206 NCDKSLHTLFGDKCTVATLTRETYGEMADCCAKOPERNCEFLQKNDPNLPRLVREY 265
Qy 181 DVMCAFFDNEETFLKTVLVEIARRHPYFAPELFFPAKRYKAAFTCCQAAADKAACLLP 240
Db 266 DVMCAFFDNEETFLKTVLVEIARRHPYFAPELFFPAKRYKAAFTCCQAAADKAACLLP 325
Qy 241 KLDELARDGKASSAKORLKCASLQKGERAFKAMAVARLSQRPFAEFAVSKLVTDLTJK 300
Db 326 KLDELARDGKASSAKORLKCASLQKGERAFKAMAVARLSQRPFAEFAVSKLVTDLTJK 385
Qy 301 VHTECCHGDLLECADDRADLAKYICENODSISKLKCECKRLKSHCIAVEVDEMPA 360

|||||
Db 386 VHTECCHGDLLECADDRADLAKYICENODSISKLKCECKRLKSHCIAVEVDEMPA 445

Qy 361 DLPSLADFPVESKDVCKONYAAKOVFLGMFLVEYARRHPDYSVLLIRLAKYETTLK 420
Db 446 DLPSLADFPVESKDVCKONYAAKOVFLGMFLVEYARRHPDYSVLLIRLAKYETTLK 505

Qy 421 CAADPHCECYAKVFDEKPLVEBPONLIRKONCELPQDGEYKFNALLVRYTKVPQVST 480
Db 506 CAADPHCECYAKVFDEKPLVEBPONLIRKONCELPQDGEYKFNALLVRYTKVPQVST 565

Qy 481 PTLVEVSRNIGKTSKCKHPEAKRMPCAEDYLSVTLNQLCTVHETTPVSDRYTKCCTS 540
Db 566 PTLVEVSRNIGKTSKCKHPEAKRMPCAEDYLSVTLNQLCTVHETTPVSDRYTKCCTS 625

Qy 541 LVNRRPCFSALVEDEYTPVPEFNAETFTFHADI CTISEKEROIKKOTALVELVGHKPKAT 600
Db 626 LVNRRPCFSALVEDEYTPVPEFNAETFTFHADI CTISEKEROIKKOTALVELVGHKPKAT 685

Qy 601 KEOLKAVMDPFAAFVEKCCAKADKETCFABEGKKLVAAASQALGL 645
Db 686 KEOLKAVMDPFAAFVEKCCAKADKETCFABEGKKLVAAASQALGL 730

RESULT 14

US-10-775-204-1622
; Sequence 1622, Application US/10775204
; Publication No. US20050186664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PFS64
; CURRENT APPLICATION NUMBER: US/10/775,204
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1622
; LENGTH: 730
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-204-1622

Query Match 100.0%; Score 3417; DB 5; Length 730;
Best Local Similarity 100.0%; Pred. No. 4,1e-259;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGR 60
Db 86 HGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTSDVSSYLEGQAAKEFIAMLVKGR 145

Qy	6	DAKSEVAARFKDISENFKALVILAFAYLOQCFEPDHVLVNEVIEFAKTCVADSAAE	120
Ds	146	DAKSEVAARFKDISENFKALVILAFAYLOQCFEPDHVLVNEVIEFAKTCVADSAAE	205
Qy	121	NCDSLHTTLFGDKLCTVAATLRETYGEMADCCAKQEPBNECFTLQHKDNPMLPVLVREY	180
Ds	206	NCDSLHTTLFGDKLCTVAATLRETYGEMADCCAKQEPBNECFTLQHKDNPMLPVLVREY	265
Qy	181	DWMTAFHNDNEETFLKKYLYETARBPYVYABELLFPKAKYKAAPTBCCQADRAACLTP	240
Ds	266	DWMTAFHNDNEETFLKKYLYETARBPYVYABELLFPKAKYKAAPTBCCQADRAACLTP	325
Qy	241	KLDELDEGSAASAKORLKCASLQKGERGAFRAVAVAALISORFPKAEFAEYVKLVDTLTK	300
Ds	326	KLDELDEGSAASAKORLKCASLQKGERGAFRAVAVAALISORFPKAEFAEYVKLVDTLTK	365
Qy	301	VHTECCHGDLLECCADRADLAKYICENODSISSKLCCECKRPLEKSHCIAEVENDMPA	360
Ds	386	VHTECCHGDLLECCADRADLAKYICENODSISSKLCCECKRPLEKSHCIAEVENDMPA	445
Qy	361	DLSLADPFIESKDVCKNYAENADVILGMLIYEVARRBPDSVULLPLATVETTLKEC	420
Ds	446	DLSLADPFIESKDVCKNYAENADVILGMLIYEVARRBPDSVULLPLATVETTLKEC	505
Qy	421	CAADPHECAKAFDEFKPLVEBPQMLIKONCELFEOJGEYFQNALVRYTKKVPQVST	480
Ds	506	CAADPHECAKAFDEFKPLVEBPQMLIKONCELFEOJGEYFQNALVRYTKKVPQVST	565
Qy	481	PLIVEYSRNLGKGVSKCCGHPKAPMCAEDYLSVILNQLCVLHEKTPVSDRVTCKTES	540
Ds	566	PLIVEYSRNLGKGVSKCCGHPKAPMCAEDYLSVILNQLCVLHEKTPVSDRVTCKTES	625
Qy	541	LNNRPFESLVEDETVPKEFAEFTTHADICTLSEKROIKKOTALVLYGHKKRAT	600
Ds	626	LNNRPFESLVEDETVPKEFAEFTTHADICTLSEKROIKKOTALVLYGHKKRAT	685
Qy	601	KEQKAVMDPFAAFVEKCKCAADKETCFABEGKULVAASQALGL	645
Ds	686	KEQKAVMDPFAAFVEKCKCAADKETCFABEGKULVAASQALGL	750
RESULT 15			
US-10-775-180-614			
: Sequence 614, Application US/10775180			
: Publication No. US20050054570A1			
: GENERAL INFORMATION:			
: APPLICANT: Rosen, Craig A.			
: APPLICANT: Haseltine, William A.			
: TITLE OF INVENTION: Albumin Fusion Proteins			
: FILE REFERENCE: P574			
: CURRENT APPLICATION NUMBER: US/10/775,180			
: PRIOR APPLICATION NUMBER: PCT/US02/40892			
: PRIOR FILING DATE: 2002-12-23			
: PRIOR APPLICATION NUMBER: 60/341,811			
: PRIOR FILING DATE: 2001-12-21			
: PRIOR APPLICATION NUMBER: 60/360,000			
: PRIOR FILING DATE: 2002-02-28			
: PRIOR APPLICATION NUMBER: 60/378,950			
: PRIOR FILING DATE: 2002-05-10			
: PRIOR APPLICATION NUMBER: 60/398,008			
: PRIOR FILING DATE: 2002-07-24			
: PRIOR APPLICATION NUMBER: 60/411,355			
: PRIOR FILING DATE: 2002-09-18			
: PRIOR APPLICATION NUMBER: 60/414,984			
: PRIOR FILING DATE: 2002-10-02			
: PRIOR APPLICATION NUMBER: 60/417,611			
: PRIOR FILING DATE: 2002-10-11			
: PRIOR APPLICATION NUMBER: 60/420,246			
: PRIOR FILING DATE: 2002-10-23			
: PRIOR APPLICATION NUMBER: 60/423,623			
: PRIOR FILING DATE: 2002-11-05			

Query Match	99.8%	Score 3411	DB 5	Length 662
Best Local Similarity	99.8%	Pred. No. 1.1e-258		
Matches 644	Conservative 0	Mismatches 1	Indels 0	Gaps 0
QY	1	HGEGETSDVSSYLEGQAKEFFIAMLVKGRHGEFTSDVSSYLEGQAKEFFIAMLVKGR	60	
DB	18	HGEGETSDVSSYLEGQAKEFFIAMLVKGRHGEFTSDVSSYLEGQAKEFFIAMLVKGR	77	
QY	61	DAHSEVAAHKKDIDGENFKALVLIAPQYIQCCPFEDHVLNVEVEFATCVADSAE	120	
DB	78	DAHSEVAAHKKDIDGENFKALVLIAPQYIQCCPFEDHVLNVEVEFATCVADSAE	137	
QY	121	NCDSLHITLFDKCLCTVATLRETYGEMADCCAKOPEBNECFLOHKDNPMLPRLVREY	180	
DB	138	NCDSLHITLFDKCLCTVATLRETYGEMADCCAKOPEBNECFLOHKDNPMLPRLVREY	197	
QY	181	DVMTAFHDEETPLKLYLIEIARRHPFYVAPBELLFFAKRYKAATFECQADRAACLLP	240	
DB	198	DVMTAFHDEETPLKLYLIEIARRHPFYVAPBELLFFAKRYKAATFECQADRAACLLP	257	
QY	241	KLDELREDEGKSSAKORLCKASLOKFGRAFKAMAVALSORFPAEFAEYSKLVTDLT	300	
DB	258	KLDELREDEGKSSAKORLCKASLOKFGRAFKAMAVALSORFPAEFAEYSKLVTDLT	317	
QY	301	VHTECHGDLLECADDRADLAKYICENODSISSKLKECCERPLAEKSHCIAVENDEMPA	360	
DB	318	VHTECHGDLLECADDRADLAKYICENODSISSKLKECCERPLAEKSHCIAVENDEMPA	377	
QY	361	DLPSLAADFVESKQCKRYAEKQVFLGMFLYEVARRPDSVVLTLATATYETTLK	420	
DB	378	DLPSLAADFVESKQCKRYAEKQVFLGMFLYEVARRPDSVVLTLATATYETTLK	437	
QY	421	CAAADPHECYAKVDFEKPFLVEEPONLKKONCELEFOLGEYKFNALLVRYTKKPOYST	480	
DB	438	CAAADPHECYAKVDFEKPFLVEEPONLKKONCELEFOLGEYKFNALLVRYTKKPOYST	497	
QY	441	PLTVESVNLKGVSKCKCKHPAKRMPAEDLSVLVNLQCLVHEKTVSDRYTKCTES	540	
DB	498	PLTVESVNLKGVSKCKCKHPAKRMPAEDLSVLVNLQCLVHEKTVSDRYTKCTES	557	
QY	541	LVRNRPCCSALEVDETYVPKEFNATFTFHADICTLSEKERQIKKQALVELVKHXPAT	600	
DB	558	LVRNRPCCSALEVDETYVPKEFNATFTFHADICTLSEKERQIKKQALVELVKHXPAT	617	
QY	601	KEQLKAVNDPRAAFVEKCCAKADKKTCAEBGSKLVAASQALGL	645	
DB	618	KEQLKAVNDPRAAFVEKCCAKADKKTCAEBGSKLVAASQALGL	662	

Search completed: April 19, 2006, 12:35:50
Job time : 138.055 secs

GenCore version 5.1.7
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OM protein - protein search, using SW model

Run on: April 19, 2006, 12:31:03 ; Search time 21.5305 Seconds

(without alignments)
1318.215 Million cell updates/sec

Title: US-10-775-180-447_COPY_30_674

Perfect score: 3417
Sequence: 1.HGBGRTSDVSSYLEGQAALKE.....TCFAERGRKLVAAASQAALGI 645

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 225428 seqs, 44002918 residues

Total number of hits satisfying chosen parameters: 225428

Minimum DB seq length: 0
Maximum DB seq length: 200000000Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA New:
1: /SIDS5/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
2: /SIDS5/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
3: /SIDS5/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
4: /SIDS5/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
5: /SIDS5/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
6: /SIDS5/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
7: /SIDS5/ptodata/1/pubpaa/US11_NEW_PUB.pep.*
8: /SIDS5/ptodata/1/pubpaa/US66_NEW_PUB.pep.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3417	100.0	674	US-11-175-690-206	Sequence 206, App
2	3417	100.0	915	US-11-175-690-208	Sequence 208, App
3	3254	95.2	646	US-11-175-690-223	Sequence 223, App
4	3253	95.2	647	US-11-175-690-212	Sequence 212, App
5	3253	95.2	648	US-11-175-690-214	Sequence 214, App
6	3252	95.2	649	US-11-175-690-213	Sequence 213, App
7	3252	95.2	650	US-11-175-690-209	Sequence 209, App
8	3251	95.2	651	US-11-175-690-224	Sequence 224, App
9	3251	95.1	652	US-11-175-690-218	Sequence 218, App
10	3250	95.1	653	US-11-175-690-215	Sequence 215, App
11	3250	95.1	654	US-11-175-690-210	Sequence 210, App
12	3250	95.1	655	US-11-175-690-210	Sequence 210, App
13	3249	95.1	656	US-11-175-690-220	Sequence 220, App
14	3249	95.1	656	US-11-175-690-225	Sequence 225, App
15	3248	95.1	657	US-11-175-690-216	Sequence 216, App
16	3248	95.1	657	US-11-175-690-303	Sequence 303, App
17	3247	95.0	659	US-11-175-690-221	Sequence 221, App
18	3183	93.2	646	US-11-175-690-276	Sequence 276, App
19	3183	93.2	678	US-11-175-690-274	Sequence 274, App
20	3173	92.9	642	US-11-175-690-238	Sequence 238, App
21	3167	92.7	642	US-11-175-690-233	Sequence 233, App
22	3154	92.3	647	US-11-175-690-242	Sequence 242, App
23	3151	92.2	636	US-11-175-690-268	Sequence 268, App
24	3150	92.2	636	US-11-175-690-278	Sequence 278, App
25	3146	92.1	636	US-11-175-690-240	Sequence 240, App

26	3135	91.7	688	US-11-175-690-198	Sequence 198, App
27	3135	91.7	629	US-11-175-690-199	Sequence 199, App
28	3131	91.6	623	US-11-175-690-562	Sequence 562, App
29	3127	91.5	637	US-11-175-690-266	Sequence 266, App
30	3125	91.5	672	US-11-175-690-200	Sequence 200, App
31	3118	91.2	728	US-11-175-690-244	Sequence 244, App
32	3118	91.2	728	US-11-175-690-246	Sequence 246, App
33	3118	91.2	728	US-11-175-690-248	Sequence 248, App
34	3112	91.1	634	US-11-175-690-207	Sequence 207, App
35	3109	91.0	638	US-11-175-690-229	Sequence 229, App
36	3108	91.0	742	US-11-175-690-525	Sequence 525, App
37	3108	91.0	609	US-11-175-690-3	Sequence 3, App
38	3108	91.0	629	US-11-175-690-561	Sequence 561, App
39	3108	91.0	634	US-11-175-690-279	Sequence 279, App
40	3108	91.0	636	US-11-175-690-239	Sequence 239, App
41	3108	91.0	636	US-11-175-690-267	Sequence 267, App
42	3108	91.0	637	US-11-175-690-277	Sequence 277, App
43	3108	91.0	637	US-11-175-690-265	Sequence 265, App
44	3108	91.0	637	US-11-175-690-557	Sequence 557, App
45	3108	91.0	638	US-11-175-690-559	Sequence 559, App

ALIGNMENTS

RESULT 1
US-11-175-690-206
Sequence 206, Application US/11175690
GENERAL INFORMATION:
Publication No. US20060014254A1
APPLICANT: Haselcline et al.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PR605
CURRENT FILING DATE: 2005-07-07
PRIOR APPLICATION NUMBER: US/11/175, 690
PRIOR FILING DATE: 2004-01-20
PRIOR APPLICATION NUMBER: PCT/US04/001369
PRIOR FILING DATE: 2003-01-22
PRIOR APPLICATION NUMBER: US 60/441,305
PRIOR FILING DATE: 2003-01-22
PRIOR APPLICATION NUMBER: US 60/453,201
PRIOR FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US 60/467,222
PRIOR FILING DATE: 2003-05-02
PRIOR APPLICATION NUMBER: US 60/472,816
PRIOR FILING DATE: 2003-05-23
PRIOR APPLICATION NUMBER: US 60/476,267
PRIOR FILING DATE: 2003-06-06
PRIOR APPLICATION NUMBER: US 60/505,172
PRIOR FILING DATE: 2003-09-24
PRIOR APPLICATION NUMBER: US 60/506,746
PRIOR FILING DATE: 2003-09-30
NUMBER OF SEQ ID NOS: 568
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 206
LENGTH: 674
TYPE: PRT
ORGANISM: Homo sapiens
US-11-175-690-206
Query Match 100.0%; Score 3417; DB 7; Length 674;
Best Local Similarity 100.0%; Pred. No. 6,8e-262;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 HGBGRTSDVSSYLEGQAALKEFLAMLVKGGHGGSTFTSDVSSYLEGQAALKEFLAMLVKGR 60
DB 30 HGBGRTSDVSSYLEGQAALKEFLAMLVKGGHGGSTFTSDVSSYLEGQAALKEFLAMLVKGR 89
QY 61 DAHSEVAHFPRKQGEENFKALVLIAPAOYLQCCPFEDHYKLVNEVTEFAKTCVADBSAE 120
DB 90 DAHSEVAHFPRKQGEENFKALVLIAPAOYLQCCPFEDHYKLVNEVTEFAKTCVADBSAE 149
QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKQEPERNECFLOHKODNPNLPALVPEV 180

Db 150 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEBERNECFLQHKDNDNPLRLVRPEV 209
QY 181 DWMCCTAFHNDNEETFLKKYLYEIAARRHPYFYAPPELLFPFAKRYKAAFTCCOAAADKACLLP 240
Db 210 DWMCCTAFHNDNEETFLKKYLYEIAARRHPYFYAPPELLFPFAKRYKAAFTCCOAAADKACLLP 269
QY 241 KDELDEBGKASAKORLKCASIQKFGERAFKMAVAARLSQRPKAEFAEVSCLVTDLYK 300
Db 270 KDELDEBGKASAKORLKCASIQKFGERAFKMAVAARLSQRPKAEFAEVSCLVTDLYK 329
QY 301 VHTCCGHDLLBECADRADLAKYICENODSISSEKLECCCKPILKESHCIAYENDEMPA 360
Db 330 VHTCCGHDLLBECADRADLAKYICENODSISSEKLECCCKPILKESHCIAYENDEMPA 389
QY 361 DLPSLAADFEVSKDVCNKAADVFLGMFLYFYARRHPYSVLLRLAKYETTLK 420
Db 390 DLPSLAADFEVSKDVCNKAADVFLGMFLYFYARRHPYSVLLRLAKYETTLK 449
QY 421 CAADPHECYAKYFDEFKPLVEBPONLIKONCELFQOLGEYKQNALVRYTKVPQVST 480
Db 450 CAADPHECYAKYFDEFKPLVEBPONLIKONCELFQOLGEYKQNALVRYTKVPQVST 509
QY 481 PTLVEVSRLNGKVGSKCKHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYTKCCTES 540
Db 510 PTLVEVSRLNGKVGSKCKHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYTKCCTES 569
QY 541 LVNRRPCFSALBVDYTPVPEFNAETFTTHADICTISEKEROIKKQTAVALVELVKHKPKAT 600
Db 570 LVNRRPCFSALBVDYTPVPEFNAETFTTHADICTISEKEROIKKQTAVALVELVKHKPKAT 629
QY 601 KEOLKAVMDPFAAFVEKCKCADDKETCFABEGKGLVAASQALGL 645
Db 630 KEOLKAVMDPFAAFVEKCKCADDKETCFABEGKGLVAASQALGL 674

RESULT 2

US-11-175-690-208
; Sequence 208, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselctine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PP605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 208
; LENGTH: 915
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-208

Query Match 100.0%; Score 3417; DB 7; Length 915;
Best Local Similarity 100.0%; Pred. No. 1e-261;
Matches 645; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HGEGTITSVSVSYLBEQAAKEPIAMLVKGRHGGTFTSDVSVSYLBEQAAKEPIAMLVKGR 60
Db 30 HGEGTITSVSVSYLBEQAAKEPIAMLVKGRHGGTFTSDVSVSYLBEQAAKEPIAMLVKGR 89
QY 61 DAHSEVARRFPOLGSENFALVLIAPAOYLQCCPEDHVKLVNEETEFKTCVADSEAE 120
Db 90 DAHSEVARRFPOLGSENFALVLIAPAOYLQCCPEDHVKLVNEETEFKTCVADSEAE 149
QY 121 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEBERNECFLQHKDNDNPLRLVRPEV 180
Db 150 NCDKSLHTLFGDKLCTVATLRETYGEMADCCAKOEBERNECFLQHKDNDNPLRLVRPEV 209
QY 181 DWMCCTAFHNDNEETFLKKYLYEIAARRHPYFYAPPELLFPFAKRYKAAFTCCOAAADKACLLP 240
Db 210 DWMCCTAFHNDNEETFLKKYLYEIAARRHPYFYAPPELLFPFAKRYKAAFTCCOAAADKACLLP 269
QY 241 KDELDEBGKASAKORLKCASIQKFGERAFKMAVAARLSQRPKAEFAEVSCLVTDLYK 300
Db 270 KDELDEBGKASAKORLKCASIQKFGERAFKMAVAARLSQRPKAEFAEVSCLVTDLYK 329
QY 301 VHTCCGHDLLBECADRADLAKYICENODSISSEKLECCCKPILKESHCIAYENDEMPA 360
Db 330 VHTCCGHDLLBECADRADLAKYICENODSISSEKLECCCKPILKESHCIAYENDEMPA 389
QY 361 DLPSLAADFEVSKDVCNKAADVFLGMFLYFYARRHPYSVLLRLAKYETTLK 420
Db 390 DLPSLAADFEVSKDVCNKAADVFLGMFLYFYARRHPYSVLLRLAKYETTLK 449
QY 421 CAADPHECYAKYFDEFKPLVEBPONLIKONCELFQOLGEYKQNALVRYTKVPQVST 480
Db 450 CAADPHECYAKYFDEFKPLVEBPONLIKONCELFQOLGEYKQNALVRYTKVPQVST 509
QY 481 PTLVEVSRLNGKVGSKCKHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYTKCCTES 540
Db 510 PTLVEVSRLNGKVGSKCKHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRYTKCCTES 569
QY 541 LVNRRPCFSALBVDYTPVPEFNAETFTTHADICTISEKEROIKKQTAVALVELVKHKPKAT 600
Db 570 LVNRRPCFSALBVDYTPVPEFNAETFTTHADICTISEKEROIKKQTAVALVELVKHKPKAT 629
QY 601 KEOLKAVMDPFAAFVEKCKCADDKETCFABEGKGLVAASQALGL 645
Db 630 KEOLKAVMDPFAAFVEKCKCADDKETCFABEGKGLVAASQALGL 674

RESULT 3

US-11-175-690-223
; Sequence 223, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselctine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PP605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 223
LENGTH: 646
TYPE: PRT
ORGANISM: Homo sapiens
US-11-175-690-223

Query Match 95.2%; Score 3254; DB 7; Length 646;
Best Local Similarity 99.7%; Pred. No. 4,8e-249;
Matches 616; Conservative 0; Mismatches 0; Indels 2; Gaps 1;

```

30 RHGGFTSDVSSYLSGQAKEFIAMLVKGR--DAKSEVARRFKDLGSENFKALVLI 87
29 RHGGFTSDVSSYLSGQAKEFIAMLVKGRDAHAKSEVARRFKDLGSENFKALVLI 88
88 AQYIQQCPPEBDHVKLVNEVTEFAKTCVADSEANCDKSLHTLFGDKLCTVAITLRETYGE 147
89 AQYIQQCPPEBDHVKLVNEVTEFAKTCVADSEANCDKSLHTLFGDKLCTVAITLRETYGE 148
148 ADCCAKQEPERNECFLOHKDNPMLPRLVREVDVWCIAFHNEETFLKYLIEIARRH 207
149 ADCCAKQEPERNECFLOHKDNPMLPRLVREVDVWCIAFHNEETFLKYLIEIARRH 208
208 YFYAPELILFFAKRYKAFTTECCQAADRAACILPKLDELDEGKASSAKORLKCASTLQKFG 267
209 YFYAPELILFFAKRYKAFTTECCQAADRAACILPKLDELDEGKASSAKORLKCASTLQKFG 268
268 ERAFKANAVARLSQRPFAKFAEAVSKLVTDILTKVHTCCGDLLECADRADLAKYICEN 327
269 ERAFKANAVARLSQRPFAKFAEAVSKLVTDILTKVHTCCGDLLECADRADLAKYICEN 328
328 ODSSISKLKECCCEKPILEKSHCIAEVENDEMPADLPISLAADPVESKOVCKRYAEAKOVFL 387
329 QDSISSKLKECCCEKPILEKSHCIAEVENDEMPADLPISLAADPVESKOVCKRYAEAKOVFL 388
388 GMFLYEYARRHPDYSVLLRLAKTYETTLKCCCAADPHECYAKVFDEFKPLVEBPONL 447
389 GMFLYEYARRHPDYSVLLRLAKTYETTLKCCCAADPHECYAKVFDEFKPLVEBPONL 448
448 IKONCELFEOLGEYKFNALLVRYTKVPQVSTPLVEVSRLGKVGSKCKKHPEAKRM 507
449 IKONCELFEOLGEYKFNALLVRYTKVPQVSTPLVEVSRLGKVGSKCKKHPEAKRM 508
508 CAEYLSVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALAEVDITYPKFENAE 567
509 CAEYLSVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALAEVDITYPKFENAE 568
568 TFHADICTLSEKEROIKKQALVELVYKHPKATKEQLKAVMDPFAAFVEKCCKADKXETC 627
569 TFHADICTLSEKEROIKKQALVELVYKHPKATKEQLKAVMDPFAAFVEKCCKADKXETC 628
628 FAEEGKKLVAAASQAALGL 645
629 FAEEGKKLVAAASQAALGL 646

```

RESULT 4
US-11-175-690-212
Sequence 212, Application US/11175690
Publication No. US20060014254A1
GENERAL INFORMATION:
APPLICANT: Haseltine et al.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PF605
CURRENT APPLICATION NUMBER: US/11/175,690
CURRENT FILING DATE: 2005-07-07
PRIOR APPLICATION NUMBER: PCT/US04/001369
PRIOR FILING DATE: 2004-01-20
PRIOR APPLICATION NUMBER: US 60/441,305
PRIOR FILING DATE: 2003-01-22
PRIOR APPLICATION NUMBER: US 60/453,201
PRIOR FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US 60/467,222
PRIOR FILING DATE: 2003-05-02

PRIOR APPLICATION NUMBER: US 60/472,816
PRIOR FILING DATE: 2003-05-23
PRIOR APPLICATION NUMBER: US 60/476,267
PRIOR FILING DATE: 2003-06-06
PRIOR APPLICATION NUMBER: US 60/505,172
PRIOR FILING DATE: 2003-09-24
PRIOR APPLICATION NUMBER: US 60/506,746
PRIOR FILING DATE: 2003-09-30
NUMBER OF SEQ ID NOS: 568
SOFTWARE: Patentln Ver. 2.0
SEQ ID NO 212
LENGTH: 647
TYPE: PRT
ORGANISM: Homo sapiens
US-11-175-690-212

Query Match 95.2%; Score 3253.5; DB 7; Length 647;
Best Local Similarity 99.5%; Pred. No. 5.3e-249;
Matches 616; Conservative 0; Mismatches 0; Indels 3; Gaps 1;

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30 RHGGFTSDVSSYLSGQAKEFIAMLVKGR---DAKSEVARRFKDLGSENFKALVLI 86
29 RHGGFTSDVSSYLSGQAKEFIAMLVKGRDAHAKSEVARRFKDLGSENFKALVLI 88
87 FAQYIQQCPPEBDHVKLVNEVTEFAKTCVADSEANCDKSLHTLFGDKLCTVAITLRETYGE 146
88 FAQYIQQCPPEBDHVKLVNEVTEFAKTCVADSEANCDKSLHTLFGDKLCTVAITLRETYGE 148
147 MADCCAKQEPERNECFLOHKDNPMLPRLVREVDVWCIAFHNEETFLKYLIEIARRH 206
149 MADCCAKQEPERNECFLOHKDNPMLPRLVREVDVWCIAFHNEETFLKYLIEIARRH 208
207 PYFYAPELILFFAKRYKAFTTECCQAADRAACILPKLDELDEGKASSAKORLKCASTLQKFG 266
209 PYFYAPELILFFAKRYKAFTTECCQAADRAACILPKLDELDEGKASSAKORLKCASTLQKFG 268
267 GERAFKAMAVARLSQRPFAKFAEAVSKLVTDILTKVHTCCGDLLECADRADLAKYICE 326
269 GERAFKAMAVARLSQRPFAKFAEAVSKLVTDILTKVHTCCGDLLECADRADLAKYICE 328
327 NODSISKLKECCCEKPILEKSHCIAEVENDEMPADLPISLAADPVESKOVCKRYAEAKOVFL 386
329 NODSISKLKECCCEKPILEKSHCIAEVENDEMPADLPISLAADPVESKOVCKRYAEAKOVFL 388
387 LGMFLYEYARRHPDYSVLLRLAKTYETTLKCCCAADPHECYAKVFDEFKPLVEBPON 446
389 LGMFLYEYARRHPDYSVLLRLAKTYETTLKCCCAADPHECYAKVFDEFKPLVEBPON 448
447 LIKONCELFEOLGEYKFNALLVRYTKVPQVSTPLVEVSRLGKVGSKCKKHPEAKRM 506
449 LIKONCELFEOLGEYKFNALLVRYTKVPQVSTPLVEVSRLGKVGSKCKKHPEAKRM 508
507 PCAEDYLSVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALAEVDITYPKFENAE 566
509 PCAEDYLSVVLNQLCVLHEKTPVSDRVTKCTESLVNRRPCFSALAEVDITYPKFENAE 568
567 FTTFHADICTLSEKEROIKKQALVELVYKHPKATKEQLKAVMDPFAAFVEKCCKADKXET 626
569 FTTFHADICTLSEKEROIKKQALVELVYKHPKATKEQLKAVMDPFAAFVEKCCKADKXET 628
627 CFAEEGKKLVAAASQAALGL 645
629 CFAEEGKKLVAAASQAALGL 647

```

RESULT 5
US-11-175-690-214
Sequence 214, Application US/11175690
Publication No. US20060014254A1
GENERAL INFORMATION:
APPLICANT: Haseltine et al.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PF605


```

; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 214
; LENGTH: 648
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-214
```

Query Match 95.2%; Score 3253; DB 7; Length 648;

Best Local Similarity 99.4%; Pred. No. 5,8e-249; Mismatches 0; Indels 4; Gaps 1;

Matches 616; Conservative 0; Mismatches 0; Indels 4; Gaps 1;

```

QY RHGGGTSPDVSSYLSGQAQKEFTAWLVKGR---DAHKSEVAHRFKDGSENFKALVLI 85
DB RHGGGTSPDVSSYLSGQAQKEFTAWLVKGRDAHKDAHKSEVAHRFKDGSENFKALVLI 88
QY AFAQYIQQCFPEHDHVKLVNVEVTEFAKTCVADESAENCDKSLHTLFGDKLCTVAITLRETY 145
DB AFAQYIQQCFPEHDHVKLVNVEVTEFAKTCVADESAENCDKSLHTLFGDKLCTVAITLRETY 148
QY EMADCCAKOBERNECFLOHKDNPMLPRLVPRPVDVWCTAFHNDNEETFLKTYLVEIARR 205
DB EMADCCAKOBERNECFLOHKDNPMLPRLVPRPVDVWCTAFHNDNEETFLKTYLVEIARR 208
QY HPYFAVELLFFAKRYKAFTCCQAADKAACILPKLDELDEBKASSAKQRLKCASLQ 268
DB HPYFAVELLFFAKRYKAFTCCQAADKAACILPKLDELDEBKASSAKQRLKCASLQ 268
QY FGEBAFKAQAVARLSQRPFAEFBAVSCLVTDLTQVTECHGDLLECADRADLAKYIC 325
DB FGEBAFKAQAVARLSQRPFAEFBAVSCLVTDLTQVTECHGDLLECADRADLAKYIC 328
QY FGEBAFKAQAVARLSQRPFAEFBAVSCLVTDLTQVTECHGDLLECADRADLAKYIC 328
DB FGEBAFKAQAVARLSQRPFAEFBAVSCLVTDLTQVTECHGDLLECADRADLAKYIC 328
QY ENODSISKLKCECEKPLEKSHCIAEVNDEMPPADLPSLAADPVESKQVCKNYAEAKDV 385
DB ENODSISKLKCECEKPLEKSHCIAEVNDEMPPADLPSLAADPVESKQVCKNYAEAKDV 388
QY ENODSISKLKCECEKPLEKSHCIAEVNDEMPPADLPSLAADPVESKQVCKNYAEAKDV 388
DB ENODSISKLKCECEKPLEKSHCIAEVNDEMPPADLPSLAADPVESKQVCKNYAEAKDV 388
QY FLGFMFLYEYARRHDPDYSVLLRLAKTYETTLERCCAAADPHCEYAKVDFEKPVLVEEPQ 445
DB FLGFMFLYEYARRHDPDYSVLLRLAKTYETTLERCCAAADPHCEYAKVDFEKPVLVEEPQ 448
QY FLGFMFLYEYARRHDPDYSVLLRLAKTYETTLERCCAAADPHCEYAKVDFEKPVLVEEPQ 448
DB FLGFMFLYEYARRHDPDYSVLLRLAKTYETTLERCCAAADPHCEYAKVDFEKPVLVEEPQ 448
QY NLIKONCELFEBQIGBYKFNALLVRYTKKVPQVSTPTLVESRNILGKVGSCCKGHPAKR 505
DB NLIKONCELFEBQIGBYKFNALLVRYTKKVPQVSTPTLVESRNILGKVGSCCKGHPAKR 508
QY NLIKONCELFEBQIGBYKFNALLVRYTKKVPQVSTPTLVESRNILGKVGSCCKGHPAKR 508
DB NLIKONCELFEBQIGBYKFNALLVRYTKKVPQVSTPTLVESRNILGKVGSCCKGHPAKR 508
QY MPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYPKEFNAL 565
DB MPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYPKEFNAL 568
QY MPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYPKEFNAL 568
DB MPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYPKEFNAL 568
QY TPTFHADICTLSEKEROIKKQGTALVELVKHKPKATKQKRAVMDFAAFVEKCKKADKE 625
DB TPTFHADICTLSEKEROIKKQGTALVELVKHKPKATKQKRAVMDFAAFVEKCKKADKE 628
QY TPTFHADICTLSEKEROIKKQGTALVELVKHKPKATKQKRAVMDFAAFVEKCKKADKE 628
DB TPTFHADICTLSEKEROIKKQGTALVELVKHKPKATKQKRAVMDFAAFVEKCKKADKE 628
QY TCFABEGKULVAASQAALGL 645
DB TCFABEGKULVAASQAALGL 648
QY TCFABEGKULVAASQAALGL 648
DB TCFABEGKULVAASQAALGL 648
```

RESULT 6

US-11-175-690-213

; Sequence 213, Application US/11175690

; Publication No. US20060014254A1

; GENERAL INFORMATION:

; APPLICANT: Haseel et al.

; TITLE OF INVENTION: Albumin Fusion Proteins

; FILE REFERENCE: PF605

; CURRENT APPLICATION NUMBER: US/11/175,690

; CURRENT FILING DATE: 2005-07-07

; PRIOR APPLICATION NUMBER: PCT/US04/001369

; PRIOR FILING DATE: 2004-01-20

; PRIOR APPLICATION NUMBER: US 60/441,305

; PRIOR FILING DATE: 2003-01-22

; PRIOR APPLICATION NUMBER: US 60/453,201

; PRIOR FILING DATE: 2003-03-11

; PRIOR APPLICATION NUMBER: US 60/467,222

; PRIOR FILING DATE: 2003-05-02

; PRIOR APPLICATION NUMBER: US 60/472,816

; PRIOR FILING DATE: 2003-05-23

; PRIOR APPLICATION NUMBER: US 60/476,267

; PRIOR FILING DATE: 2003-06-06

; PRIOR APPLICATION NUMBER: US 60/505,172

; PRIOR FILING DATE: 2003-09-24

; PRIOR APPLICATION NUMBER: US 60/506,746

; PRIOR FILING DATE: 2003-09-30

; NUMBER OF SEQ ID NOS: 568

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 213

; LENGTH: 649

; TYPE: PRT

; ORGANISM: Homo sapiens

US-11-175-690-213

Query Match 95.2%; Score 3252.5; DB 7; Length 649;

Best Local Similarity 99.2%; Pred. No. 6,4e-249; Mismatches 0; Indels 5; Gaps 1;

Matches 616; Conservative 0; Mismatches 0; Indels 5; Gaps 1;

```

QY RHGGGTSPDVSSYLSGQAQKEFTAWLVKGR-----DAHKSEVAHRFKDGSENFKALVLI 84
DB RHGGGTSPDVSSYLSGQAQKEFTAWLVKGRDAHKDAHKSEVAHRFKDGSENFKALVLI 88
QY IAFQYIQQCFPEHDHVKLVNVEVTEFAKTCVADESAENCDKSLHTLFGDKLCTVAITLRETY 144
DB IAFQYIQQCFPEHDHVKLVNVEVTEFAKTCVADESAENCDKSLHTLFGDKLCTVAITLRETY 148
QY IAFQYIQQCFPEHDHVKLVNVEVTEFAKTCVADESAENCDKSLHTLFGDKLCTVAITLRETY 148
DB IAFQYIQQCFPEHDHVKLVNVEVTEFAKTCVADESAENCDKSLHTLFGDKLCTVAITLRETY 148
QY GEMADCCAKOBERNECFLOHKDNPMLPRLVPRPVDVWCTAFHNDNEETFLKTYLVEIARR 204
DB GEMADCCAKOBERNECFLOHKDNPMLPRLVPRPVDVWCTAFHNDNEETFLKTYLVEIARR 208
QY GEMADCCAKOBERNECFLOHKDNPMLPRLVPRPVDVWCTAFHNDNEETFLKTYLVEIARR 208
DB GEMADCCAKOBERNECFLOHKDNPMLPRLVPRPVDVWCTAFHNDNEETFLKTYLVEIARR 208
QY RHGYFAVELLFFAKRYKAFTCCQAADKAACILPKLDELDEBKASSAKQRLKCASLQ 264
DB RHGYFAVELLFFAKRYKAFTCCQAADKAACILPKLDELDEBKASSAKQRLKCASLQ 268
QY RHGYFAVELLFFAKRYKAFTCCQAADKAACILPKLDELDEBKASSAKQRLKCASLQ 268
DB RHGYFAVELLFFAKRYKAFTCCQAADKAACILPKLDELDEBKASSAKQRLKCASLQ 268
QY KFGERAFAKAAVARLSQRPFAEFBAVSCLVTDLTQVTECHGDLLECADRADLAKYI 324
DB KFGERAFAKAAVARLSQRPFAEFBAVSCLVTDLTQVTECHGDLLECADRADLAKYI 328
QY KFGERAFAKAAVARLSQRPFAEFBAVSCLVTDLTQVTECHGDLLECADRADLAKYI 328
DB KFGERAFAKAAVARLSQRPFAEFBAVSCLVTDLTQVTECHGDLLECADRADLAKYI 328
QY CENODSISKLKCECEKPLEKSHCIAEVNDEMPPADLPSLAADPVESKQVCKNYAEAKDV 384
DB CENODSISKLKCECEKPLEKSHCIAEVNDEMPPADLPSLAADPVESKQVCKNYAEAKDV 388
QY CENODSISKLKCECEKPLEKSHCIAEVNDEMPPADLPSLAADPVESKQVCKNYAEAKDV 388
DB CENODSISKLKCECEKPLEKSHCIAEVNDEMPPADLPSLAADPVESKQVCKNYAEAKDV 388
QY VFLGFMFLYEYARRHDPDYSVLLRLAKTYETTLERCCAAADPHCEYAKVDFEKPVLVEEP 444
DB VFLGFMFLYEYARRHDPDYSVLLRLAKTYETTLERCCAAADPHCEYAKVDFEKPVLVEEP 448
QY VFLGFMFLYEYARRHDPDYSVLLRLAKTYETTLERCCAAADPHCEYAKVDFEKPVLVEEP 448
DB VFLGFMFLYEYARRHDPDYSVLLRLAKTYETTLERCCAAADPHCEYAKVDFEKPVLVEEP 448
QY QNLIKONCELFEBQIGBYKFNALLVRYTKKVPQVSTPTLVESRNILGKVGSCCKGHPAKR 504
DB QNLIKONCELFEBQIGBYKFNALLVRYTKKVPQVSTPTLVESRNILGKVGSCCKGHPAKR 508
QY QNLIKONCELFEBQIGBYKFNALLVRYTKKVPQVSTPTLVESRNILGKVGSCCKGHPAKR 508
DB QNLIKONCELFEBQIGBYKFNALLVRYTKKVPQVSTPTLVESRNILGKVGSCCKGHPAKR 508
QY RMPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYPKEFNAL 564
DB RMPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYPKEFNAL 568
QY RMPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYPKEFNAL 564
DB RMPCAEDYLSVTLNQLCVLHEKTPVSDRYTKCTESLVNRRPCFSALVEDETYPKEFNAL 568
```



```
Db 509 RMPCAEYILSVLNLQCLVHEKTPVSDRTKCTESLVNRRPCFSALFVDETVYKERN 568
Qy 565 EFTFTHADICTLSEKERQIKKOTALVELVGHKPKATKEQLKAVMDPFAFVEKCKKADK 624
Db 569 EFTFTHADICTLSEKERQIKKOTALVELVGHKPKATKEQLKAVMDPFAFVEKCKKADK 628
Qy 625 ETCFAEGKGLVVAASQAALGL 645
Db 629 ETCFAEGKGLVVAASQAALGL 649

RESULT 7
US-11-175-690-209
; Sequence 209, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haeseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PP605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 209
; LENGTH: 650
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-209

Query Match 95.2%; Score 3252; DB 7; Length 650;
Best Local Similarity 99.0%; Pred. No. 7e-249;
Matches 616; Conservative 0; Mismatches 0; Indels 6; Gaps 1;
```

```
Qy 384 DVEFGMELEYARRHDPYSVLLIRLAKTYETLLEKCAADPHNCCYAKVDFEKPJVE 443
Db 389 DVEFGMELEYARRHDPYSVLLIRLAKTYETLLEKCAADPHNCCYAKVDFEKPJVE 448
Qy 444 PÖNLIKÖNCELFEOŁGEYKÖNALLVRYTKVPOVSTPLVVEYSRLGKVGSKCGHPA 503
Db 449 PÖNLIKÖNCELFEOŁGEYKÖNALLVRYTKVPOVSTPLVVEYSRLGKVGSKCGHPA 508
Qy 504 KRMPCAEYILSVLNLQCLVHEKTPVSDRTKCTESLVNRRPCFSALFVDETVYKERN 563
Db 509 KRMPCAEYILSVLNLQCLVHEKTPVSDRTKCTESLVNRRPCFSALFVDETVYKERN 568
Qy 564 AETFTHADICTLSEKERQIKKOTALVELVGHKPKATKEQLKAVMDPFAFVEKCKKAD 623
Db 569 AETFTHADICTLSEKERQIKKOTALVELVGHKPKATKEQLKAVMDPFAFVEKCKKAD 628
Qy 624 KETCPAEGKGLVVAASQAALGL 645
Db 629 KETCPAEGKGLVVAASQAALGL 650

RESULT 8
US-11-175-690-224
; Sequence 224, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haeseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PP605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 224
; LENGTH: 651
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-224

Query Match 95.2%; Score 3251.5; DB 7; Length 651;
Best Local Similarity 98.9%; Pred. No. 7.7e-249;
Matches 616; Conservative 0; Mismatches 0; Indels 7; Gaps 1;
```

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Db 209 ARHHFYAPBELLFFAARFYKAAFTCCOAAADKAACTLPKLBELRDEGKASSAKORLKCA 268
Qy 263 LOKRGEAFKAMAVARLSORFPKAFPAVSKLVTDLTQVTECHGDLLECADDRAADIAK 322
Db 269 LOKRGERAFKAMAVARLSORFPKAFPAVSKLVTDLTQVTECHGDLLECADDRAADIAK 328
Qy 323 YICENODISSKLEKCECEKPLEKSHCIAEVENDEMPADLPJLAADFVESKDVCKNYAEA 382
Db 329 YICENODISSKLEKCECEKPLEKSHCIAEVENDEMPADLPJLAADFVESKDVCKNYAEA 388
Qy 383 KQVFLGMFLYEYARRHDPYSVLLRLAKTYETTLKCCAAADPHCEYAKVPEBPKPLVE 442
Db 389 KQVFLGMFLYEYARRHDPYSVLLRLAKTYETTLKCCAAADPHCEYAKVPEBPKPLVE 448
Qy 443 EPONLIKONCELFEOQGEYKFNALLVRYTKVPOVSTPLTVEYSRLGKYGSKCKKHP 502
Db 449 EPONLIKONCELFEOQGEYKFNALLVRYTKVPOVSTPLTVEYSRLGKYGSKCKKHP 508
Qy 503 AKRMPCAEDYLSVNLQCVLHEKTPVSDRYKCTESLVNRRPCFSALBVDETVYPER 562
Db 509 AKRMPCAEDYLSVNLQCVLHEKTPVSDRYKCTESLVNRRPCFSALBVDETVYPER 568
Qy 563 NAETFTFHADICTLSEKERQIKKOTALVELYKHKPKATKQOLKAVMDPFAAFVEKCKAD 622
Db 569 NAETFTFHADICTLSEKERQIKKOTALVELYKHKPKATKQOLKAVMDPFAAFVEKCKAD 628
Qy 623 DKETCFABEGKCLVAASQAAIGL 645
Db 629 DKETCFABEGKCLVAASQAAIGL 651
```

RESULT 9

```
US-11-175-690-218
; Sequence 218, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselaine et al.
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; PRIOR FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 218
; LENGTH: 652
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-218
```

```
Query Match 95.1%; Score 3251; DB 7; Length 652;
Best Local Similarity 98.7%; Pred. No. 8,4e-249;
Matches 616; Conservative 0; Mismatches 0; Indels 8; Gaps 1;
Qy 30 RHGGGTFTSDVSSYLEGQAAYKPTAMLVKGR-----DAHKEVAHRRFDLGEENPKA 81
Db 29 RHGGGTFTSDVSSYLEGQAAYKPTAMLVKGRDAHKEVAHRRFDLGEENPKA 88
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Qy 82 LVIIAFAQYIQQCFEDHYKLVNEVTEPAKTCYADESAAKCDKSLHTLTFGDKLCTVATIR 141
Db 89 LVIIAFAQYIQQCFEDHYKLVNEVTEPAKTCYADESAAKCDKSLHTLTFGDKLCTVATIR 148
Qy 142 EYTGEMAADCAKQEPERNBCFLQHKDNPRLVPEVDVWCTAFAHDEEFTLKCYLVE 201
Db 149 EYTGEMAADCAKQEPERNBCFLQHKDNPRLVPEVDVWCTAFAHDEEFTLKCYLVE 208
Qy 202 IARRHIFYAPBELLFFAARFYKAAFTCCOAAADKAACTLPKLBELRDEGKASSAKORLKCA 261
Db 209 IARRHIFYAPBELLFFAARFYKAAFTCCOAAADKAACTLPKLBELRDEGKASSAKORLKCA 268
Qy 262 SLOKFEERAFKAMAVARLSORFPKAFPAVSKLVTDLTQVTECHGDLLECADDRAADIA 321
Db 269 SLOKFEERAFKAMAVARLSORFPKAFPAVSKLVTDLTQVTECHGDLLECADDRAADIA 328
Qy 322 KYICENODISSKLEKCECEKPLEKSHCIAEVENDEMPADLPJLAADFVESKDVCKNYAE 381
Db 329 KYICENODISSKLEKCECEKPLEKSHCIAEVENDEMPADLPJLAADFVESKDVCKNYAE 388
Qy 382 AKQVFLGMFLYEYARRHDPYSVLLRLAKTYETTLKCCAAADPHCEYAKVPEBPKPLV 441
Db 389 AKQVFLGMFLYEYARRHDPYSVLLRLAKTYETTLKCCAAADPHCEYAKVPEBPKPLV 448
Qy 442 BEPONLIKONCELFEOQGEYKFNALLVRYTKVPOVSTPLTVEYSRLGKYGSKCKKHP 501
Db 449 BEPONLIKONCELFEOQGEYKFNALLVRYTKVPOVSTPLTVEYSRLGKYGSKCKKHP 508
Qy 502 EAKRMPCAEDYLSVNLQCVLHEKTPVSDRYKCTESLVNRRPCFSALBVDETVYPER 561
Db 509 EAKRMPCAEDYLSVNLQCVLHEKTPVSDRYKCTESLVNRRPCFSALBVDETVYPER 568
Qy 562 FNAETFTFHADICTLSEKERQIKKOTALVELYKHKPKATKQOLKAVMDPFAAFVEKCKCA 621
Db 569 FNAETFTFHADICTLSEKERQIKKOTALVELYKHKPKATKQOLKAVMDPFAAFVEKCKCA 628
Qy 622 DKETCFABEGKCLVAASQAAIGL 645
Db 629 DKETCFABEGKCLVAASQAAIGL 652
```

RESULT 10

```
US-11-175-690-215
; Sequence 215, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselaine et al.
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; PRIOR FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 215
; LENGTH: 653
; TYPE: PRT
```

ORGANISM: Homo sapiens
US-11-175-690-215

Query Match 95.1%; Score 3250.5; DB 7; Length 653;
Best Local Similarity 98.6%; Pred. No. 9.2e-249;
Matches 616; Conservative 0; Mismatches 0; Indels 9; Gaps 1;

```

30 RHGGFTSDVSSYLEGQAKEFIAMLVKGR-----DAHSEVVAHRFKDLGEENFK 80
DB RHGGFTSDVSSYLEGQAKEFIAMLVKGRDAHKSVAHRDAHKSVAHRFKDLGEENFK 88
QY ALVLIAPAYLLOQCFPEHDVKLVNEVTEPAKTCVADSAENCDKSLHTLFGDKLCTVATL 140
DB ALVLIAPAYLLOQCFPEHDVKLVNEVTEPAKTCVADSAENCDKSLHTLFGDKLCTVATL 148
QY 141 RETYGMADCCAKOEPERNECFLOHKDNPMLPRLVREVDVMTAFHNEETFLKKYLY 200
DB 149 RETYGMADCCAKOEPERNECFLOHKDNPMLPRLVREVDVMTAFHNEETFLKKYLY 208
QY 201 EIAARRHFFYAPABELLFPAKRYKAFTCCQAADKAACLLPKLDELDEBGRKASSAKORLKC 260
DB 209 EIAARRHFFYAPABELLFPAKRYKAFTCCQAADKAACLLPKLDELDEBGRKASSAKORLKC 268
QY 261 ASLOKFGERAFAKAVAVARLSORFPKAEPAEVSCLVTDLTKVTECHGDLLECADRADL 320
DB 269 ASLOKFGERAFAKAVAVARLSORFPKAEPAEVSCLVTDLTKVTECHGDLLECADRADL 328
QY 321 AKYICENODSISKLKCECEKPLLEKSHCIAEVENDEMPADLPSLAADPVESKDVCKNYA 380
DB 329 AKYICENODSISKLKCECEKPLLEKSHCIAEVENDEMPADLPSLAADPVESKDVCKNYA 388
QY 381 EAKOVFLGMFLYEYARRHDPYSVLLRLAKTYETTLLEKCAADPHECYAKVDEKPL 440
DB 389 EAKOVFLGMFLYEYARRHDPYSVLLRLAKTYETTLLEKCAADPHECYAKVDEKPL 448
QY 441 VESPPQNLIKONCELEFQOLGEYKFNALLVRYTKKVPQVSTPTLVEVSRLGKVGSKCKH 500
DB 449 VESPPQNLIKONCELEFQOLGEYKFNALLVRYTKKVPQVSTPTLVEVSRLGKVGSKCKH 508
QY 501 PEAKRMPCAEDYLSVNLQCVLHEKTPVSDRVTCKCTESLVNRRPCFSALEVDETYVPK 560
DB 509 PEAKRMPCAEDYLSVNLQCVLHEKTPVSDRVTCKCTESLVNRRPCFSALEVDETYVPK 568
QY 561 EFNAETFTFHADICTLSEKERQIKQOTALVELVHKRPATKQOLKAVMDPAFAVEKCK 620
DB 569 EFNAETFTFHADICTLSEKERQIKQOTALVELVHKRPATKQOLKAVMDPAFAVEKCK 628
QY 621 ADDKETCPAEBGKCLVAASQAALGL 645
DB 629 ADDKETCPAEBGKCLVAASQAALGL 653

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RESULT 11

US-11-175-690-219
Sequence 219, Application US/11175690
Publication No. US20060014254A1
GENERAL INFORMATION:
APPLICANT: Haselaine et al.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PR605
CURRENT APPLICATION NUMBER: US/11/175,690
CURRENT FILING DATE: 2005-07-07
PRIOR APPLICATION NUMBER: PCT/US04/001369
PRIOR FILING DATE: 2004-01-20
PRIOR APPLICATION NUMBER: US 60/441,305
PRIOR FILING DATE: 2003-01-22
PRIOR APPLICATION NUMBER: US 60/453,201
PRIOR FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US 60/467,222
PRIOR FILING DATE: 2003-05-02
PRIOR APPLICATION NUMBER: US 60/472,816
PRIOR FILING DATE: 2003-05-23
PRIOR APPLICATION NUMBER: US 60/476,267

PRIOR FILING DATE: 2003-06-06
PRIOR APPLICATION NUMBER: US 60/505,172
PRIOR FILING DATE: 2003-09-24
PRIOR APPLICATION NUMBER: US 60/506,746
PRIOR FILING DATE: 2003-09-30
NUMBER OF SEQ ID NOS: 568
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 219
LENGTH: 654
TYPE: PRF
ORGANISM: Homo sapiens
US-11-175-690-219

Query Match 95.1%; Score 3250; DB 7; Length 654;
Best Local Similarity 98.4%; Pred. No. 1e-248;
Matches 616; Conservative 0; Mismatches 0; Indels 10; Gaps 1;

```

30 RHGGFTSDVSSYLEGQAKEFIAMLVKGR-----DAHSEVVAHRFKDLGEENFK 79
DB RHGGFTSDVSSYLEGQAKEFIAMLVKGRDAHKSVAHRDAHKSVAHRFKDLGEENFK 88
QY 80 KALVLIAPAYLLOQCFPEHDVKLVNEVTEPAKTCVADSAENCDKSLHTLFGDKLCTVAT 139
DB 89 KALVLIAPAYLLOQCFPEHDVKLVNEVTEPAKTCVADSAENCDKSLHTLFGDKLCTVAT 148
QY 140 LRETYGMADCCAKOEPERNECFLOHKDNPMLPRLVREVDVMTAFHNEETFLKKYLY 199
DB 149 LRETYGMADCCAKOEPERNECFLOHKDNPMLPRLVREVDVMTAFHNEETFLKKYLY 208
QY 200 YEIARRHFFYAPABELLFPAKRYKAFTCCQAADKAACLLPKLDELDEBGRKASSAKORLKC 259
DB 209 YEIARRHFFYAPABELLFPAKRYKAFTCCQAADKAACLLPKLDELDEBGRKASSAKORLKC 268
QY 260 CASLOKFGERAFAKAVAVARLSORFPKAEPAEVSCLVTDLTKVTECHGDLLECADRAD 319
DB 269 CASLOKFGERAFAKAVAVARLSORFPKAEPAEVSCLVTDLTKVTECHGDLLECADRAD 328
QY 320 LAKYICENODSISKLKCECEKPLLEKSHCIAEVENDEMPADLPSLAADPVESKDVCKNY 379
DB 329 LAKYICENODSISKLKCECEKPLLEKSHCIAEVENDEMPADLPSLAADPVESKDVCKNY 388
QY 380 ABAKDVFLGMFLYEYARRHDPYSVLLRLAKTYETTLLEKCAADPHECYAKVDEKPL 439
DB 389 ABAKDVFLGMFLYEYARRHDPYSVLLRLAKTYETTLLEKCAADPHECYAKVDEKPL 448
QY 440 LVESPPQNLIKONCELEFQOLGEYKFNALLVRYTKKVPQVSTPTLVEVSRLGKVGSKCK 499
DB 449 LVESPPQNLIKONCELEFQOLGEYKFNALLVRYTKKVPQVSTPTLVEVSRLGKVGSKCK 508
QY 500 HPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRVTCKCTESLVNRRPCFSALEVDETYVP 559
DB 509 HPEAKRMPCAEDYLSVNLQCVLHEKTPVSDRVTCKCTESLVNRRPCFSALEVDETYVP 568
QY 560 KEFNAETFTFHADICTLSEKERQIKQOTALVELVHKRPATKQOLKAVMDPAFAVEKCK 619
DB 569 KEFNAETFTFHADICTLSEKERQIKQOTALVELVHKRPATKQOLKAVMDPAFAVEKCK 628
QY 620 KADDKETCPAEBGKCLVAASQAALGL 645
DB 629 KADDKETCPAEBGKCLVAASQAALGL 654

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RESULT 12

US-11-175-690-210
Sequence 210, Application US/11175690
Publication No. US20060014254A1
GENERAL INFORMATION:
APPLICANT: Haselaine et al.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PR605
CURRENT APPLICATION NUMBER: US/11/175,690
CURRENT FILING DATE: 2005-07-07
PRIOR APPLICATION NUMBER: PCT/US04/001369

```

; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 210
; LENGTH: 658
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-210

Query Match      95.1%; Score 3250; DB 7; Length 658;
Best Local Similarity 96.0%; Pred. No. 1e-248;
Matches 619; Conservative 1; Mismatches 9; Indels 16; Gaps 1;

QY 1 HGGGFTSDVSSYLEGQAKEFIAMLVKGRHGGFTSDVSSYLEGQAKEFIAMLVKGR 60
DB 30 HGGGFTSDVSSYLEGQAKEFIAMLVKGR-----DAKSEVAHRFKDL 73
QY 61 DAKSEVAHRFKDLGGEENFKALVLIAPAOYLQCCPFEDHYKLVNEVTEFAKTCVADSAE 120
DB 74 DAKSEVAHRFKDLGGEENFKALVLIAPAOYLQCCPFEDHYKLVNEVTEFAKTCVADSAE 133
QY 121 NCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPRNECFLOHKDNPMLPRLVPEV 180
DB 134 NCDKSLHTLFGDKLCTVAATLRETYGEMADCCAKOEPRNECFLOHKDNPMLPRLVPEV 193
QY 181 DVNCTAFHNDNEETFLKYLVEIARHPFYFAPELLFPFAKRYKAAFTECCQAADKACLLP 240
DB 194 DVNCTAFHNDNEETFLKYLVEIARHPFYFAPELLFPFAKRYKAAFTECCQAADKACLLP 253
QY 241 KLDELRLDEGKASAKORLKCASLOKFGERAFAKAAVAVRLSORPFAKFAFVSKLVTDLT 300
DB 254 KLDELRLDEGKASAKORLKCASLOKFGERAFAKAAVAVRLSORPFAKFAFVSKLVTDLT 313
QY 301 VHTTECGHGDLLCECADRADLAKTYICENQDISISKLKCECKPILKSHCIAVENDEMPA 360
DB 314 VHTTECGHGDLLCECADRADLAKTYICENQDISISKLKCECKPILKSHCIAVENDEMPA 373
QY 361 DLPSLADPVESKDVCKVNAFAKOVFLGMFLYEFARHPYSVVLLRLAKTYETTLK 420
DB 374 DLPSLADPVESKDVCKVNAFAKOVFLGMFLYEFARHPYSVVLLRLAKTYETTLK 433
QY 421 CAADPHECYAKVDEFKPLVEBPONLIKONCELLFOLGGEYKFNALLVYTKKVPVOST 480
DB 434 CAADPHECYAKVDEFKPLVEBPONLIKONCELLFOLGGEYKFNALLVYTKKVPVOST 493
QY 481 PTLVEVRNLGKVGSKCCKHPKAMPKADYLSVVLNQLCVLHEKTPVSDRVTKCTTES 540
DB 494 PTLVEVRNLGKVGSKCCKHPKAMPKADYLSVVLNQLCVLHEKTPVSDRVTKCTTES 553
QY 541 LVNRRPCFSALVEVDYTVVPEFNAETFTPHADICTISEKERQIKKQALVELVGHKPKAT 600
DB 554 LVNRRPCFSALVEVDYTVVPEFNAETFTPHADICTISEKERQIKKQALVELVGHKPKAT 613
QY 601 KEOLKAVMDPFAAFVECKCADKSETCFABEGKKLVAAISOALGL 645
DB 614 KEOLKAVMDPFAAFVECKCADKSETCFABEGKKLVAAISOALGL 658

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RESULT 13

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US-11-175-690-220
; Sequence 220, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: P6605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 220
; LENGTH: 655
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-220

Query Match      95.1%; Score 3249.5; DB 7; Length 655;
Best Local Similarity 98.2%; Pred. No. 1.1e-248;
Matches 616; Conservative 0; Mismatches 0; Indels 11; Gaps 1;

QY 30 RHGGGFTSDVSSYLEGQAKEFIAMLVKGR-----DAKSEVAHRFKDLGGEEN 78
DB 29 RHGGGFTSDVSSYLEGQAKEFIAMLVKGRDHAHKEVNAHRDAHKEVNAHRFKDLGGEEN 88
QY 79 FKALVLIAPAOYLQCCPFEDHYKLVNEVTEFAKTCVADSAEACDLSLTLFGDKLCTVA 138
DB 89 FKALVLIAPAOYLQCCPFEDHYKLVNEVTEFAKTCVADSAEACDLSLTLFGDKLCTVA 148
QY 139 TLRBTYGMADCCAKOEPRNECFLOHKDNPMLPRLVPEVDMCTAFHNDNEETFLAKTY 198
DB 149 TLRBTYGMADCCAKOEPRNECFLOHKDNPMLPRLVPEVDMCTAFHNDNEETFLAKTY 208
QY 199 LVEIARHPFYFAPELLFPFAKRYKAAFTECCQAADKACLLPRLDELRLDEGKASAKORL 258
DB 209 LVEIARHPFYFAPELLFPFAKRYKAAFTECCQAADKACLLPRLDELRLDEGKASAKORL 268
QY 259 KCASLOKFGERAFAKAAVAVRLSORPFAKFAFVSKLVTDLTQVHTTECGHGDLLCEADDDA 318
DB 269 KCASLOKFGERAFAKAAVAVRLSORPFAKFAFVSKLVTDLTQVHTTECGHGDLLCEADDDA 328
QY 319 DLAKTYICENQDISISKLKCECKPILKSHCIAVENDEMPADLPDLADPVESKDVCKN 378
DB 329 DLAKTYICENQDISISKLKCECKPILKSHCIAVENDEMPADLPDLADPVESKDVCKN 388
QY 379 YAEAKOVFLGMFLYEFARHPYSVVLLRLAKTYETTLKCAADPHECYAKVDEFK 438
DB 389 YAEAKOVFLGMFLYEFARHPYSVVLLRLAKTYETTLKCAADPHECYAKVDEFK 448
QY 439 PTLVEBPONLIKONCELLFOLGGEYKFNALLVYTKKVPVOSTPTLVEVRNLGKVGSKCC 498
DB 449 PTLVEBPONLIKONCELLFOLGGEYKFNALLVYTKKVPVOSTPTLVEVRNLGKVGSKCC 508
QY 499 KHPKAMPKADYLSVVLNQLCVLHEKTPVSDRVTKCTTESLVNRRPCFSALVEVDYTV 558
DB 509 KHPKAMPKADYLSVVLNQLCVLHEKTPVSDRVTKCTTESLVNRRPCFSALVEVDYTV 568

```

Qy 559 PPEPAAETTFADICTLSEKKEQIKQYALVYVHKPKATSEQLKAVDDPAAFYEC 618

Db 569 PPEPAAETTFADICTLSEKKEQIKQYALVYVHKPKATSEQLKAVDDPAAFYEC 628

Qy 619 CKAADKETCFABEGKGLVAASQALGL 645

Db 629 CKAADKETCFABEGKGLVAASQALGL 655

RESULT 14

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US-11-175-690-225
; Sequence 225, Application US/11175690
; Publication No. US20060014254A1
GENERAL INFORMATION:
APPLICANT: Haselaine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: P6605
CURRENT APPLICATION NUMBER: US/11/175,690
CURRENT FILING DATE: 2005-07-07
PRIOR APPLICATION NUMBER: PCT/US04/001369
PRIOR FILING DATE: 2004-01-20
PRIOR APPLICATION NUMBER: US 60/441,305
PRIOR FILING DATE: 2003-01-22
PRIOR APPLICATION NUMBER: US 60/453,201
PRIOR FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US 60/467,222
PRIOR FILING DATE: 2003-05-02
PRIOR APPLICATION NUMBER: US 60/472,816
PRIOR FILING DATE: 2003-05-23
PRIOR APPLICATION NUMBER: US 60/476,267
PRIOR FILING DATE: 2003-06-06
PRIOR APPLICATION NUMBER: US 60/505,172
PRIOR FILING DATE: 2003-09-24
PRIOR APPLICATION NUMBER: US 60/506,746
PRIOR FILING DATE: 2003-09-30
NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 225
; LENGTH: 656
; TYPE: prt
; ORGANISM: Homo sapiens
US-11-175-690-225

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Db	369	NYAEKOVFLGMFLYBARRRHDSVLLRLAKTYETTLERKCAADPHECYAKVDEF	448
Qy	438	KPLVEEPONLTKONCELPOLGEYKFPONALLVRYTKKPVQVSTPTLVEYSRLNGKSGKC	497
Db	449	KPLVEEPONLTKONCELPOLGEYKFPONALLVRYTKKPVQVSTPTLVEYSRLNGKSGKC	508
Qy	498	CKHPEAKMPCAEADYLSVLNOLCVLHEKTPVSDRVTKCTESLNNRRPCFSALBVDETY	557
Db	509	CKHPEAKMPCAEADYLSVLNOLCVLHEKTPVSDRVTKCTESLNNRRPCFSALBVDETY	568
Qy	558	VPKENFAETFTFHADICTLSEKERQIKQOTALVELYKHKPKATKEQLKAVMDFAFVEK	617
Db	569	VPKENFAETFTFHADICTLSEKERQIKQOTALVELYKHKPKATKEQLKAVMDFAFVEK	628
Qy	618	CKKADKETCFABEGSKLVAAASQALLGL	645
Db	629	CKKADKETCFABEGSKLVAAASQALLGL	656

RESULT 15

```

US-11-175-690-216
/ Sequence 216, Application US/11175690
/ Publication No. US20060014254A1
/ GENERAL INFORMATION:
/ APPLICANT: Haseltine et al.
/ TITLE OF INVENTION: Albumin Fusion Proteins
/ FILE REFERENCE: PR605
/ CURRENT APPLICATION NUMBER: US/11/175,690
/ CURRENT FILING DATE: 2005-07-07
/ PRIOR APPLICATION NUMBER: PCT/US04/001369
/ PRIOR FILING DATE: 2004-01-20
/ PRIOR APPLICATION NUMBER: US 60/441,305
/ PRIOR FILING DATE: 2003-01-22
/ PRIOR APPLICATION NUMBER: US 60/453,201
/ PRIOR FILING DATE: 2003-03-11
/ PRIOR APPLICATION NUMBER: US 60/467,222
/ PRIOR FILING DATE: 2003-05-02
/ PRIOR APPLICATION NUMBER: US 60/472,816
/ PRIOR FILING DATE: 2003-05-23
/ PRIOR APPLICATION NUMBER: US 60/476,267
/ PRIOR FILING DATE: 2003-06-06
/ PRIOR APPLICATION NUMBER: US 60/505,112
/ PRIOR FILING DATE: 2003-09-24
/ PRIOR APPLICATION NUMBER: US 60/506,746
/ PRIOR FILING DATE: 2003-09-30
/ NUMBER OF SEQ ID NOS: 568
/ SOFTWARE: PatentIn Ver. 2.0
/ SEQ ID NO 216
/ LENGTH: 657
/ TYPE: PRT
/ ORGANISM: Homo sapiens
US-11-175-690-216

```

QY	257	RLKCA	SLQKFG	ERAFKAWA	VARLSQR	PPRAE	FAEVS	KLVTDLTKVHTE	CGHDL	ECADD	316
Db	269	RLKCA	SLQKFG	ERAFKAWA	VARLSQR	PPRAE	FAEVS	KLVTDLTKVHTE	CGHDL	ECADD	328
QY	317	RADLAKY	ICENOD	SISSK	KECC	EP	LEKSH	CI	AEV	ND	EMPAD
Db	329	RADLAKY	ICENOD	SISSK	KECC	EP	LEKSH	CI	AEV	ND	EMPAD
QY	377	KNYAE	KDVF	LGWFL	YEVAR	RHPDY	SVLLRL	LAKTYE	TTLEK	CAAD	PHEC
Db	389	KNYAE	KDVF	LGWFL	YEVAR	RHPDY	SVLLRL	LAKTYE	TTLEK	CAAD	PHEC
QY	437	FKPLVEE	PONLI	KONCEL	FEOLG	YK	RONAL	LV	RYTKV	POVST	PTLVE
Db	449	FKPLVEE	PONLI	KONCEL	FEOLG	YK	RONAL	LV	RYTKV	POVST	PTLVE
QY	497	CKHPEAK	MP	CAEDYL	SVVLANOL	CVL	HEKTPV	SDR	VT	CC	TESL
Db	509	CKHPEAK	MP	CAEDYL	SVVLANOL	CVL	HEKTPV	SDR	VT	CC	TESL
QY	557	YVPKE	FNAET	FTHADI	CTISEK	ROI	KQ	TAL	VEL	VKH	K
Db	569	YVPKE	FNAET	FTHADI	CTISEK	ROI	KQ	TAL	VEL	VKH	K
QY	617	KCC	KAD	KET	CF	AE	EG	KL	V	AA	SO
Db	629	KCC	KAD	KET	CF	AE	EG	KL	V	AA	SO

Search completed: April 19, 2006, 12:36:42
 Job time : 22.5305 secs

GenCore version 5.1.7
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OM protein - protein search, using bw model

Run on: April 19, 2006, 11:56:31 ; Search time 21.1122 Seconds
(without alignments)
1852.232 Million cell updates/sec

Title: US-10-775-180-449

Perfect score: 465
Sequence: 1 NMIFRFLSLSTVQLEHT.....SSYLEGQAKRFIWLVKGR 89

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_21:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	465	100.0	89	ADFI16195	Adfi16195 Human alb
2	465	100.0	89	ADH21652	Adh21652 Human GLP
3	465	100.0	673	ADFI17044	Adfi17044 Human alb
4	465	100.0	673	ADH22037	Adh22037 Mouse alb
5	465	100.0	674	ADFI16193	Adfi16193 Human alb
6	465	100.0	674	ADH21650	Adh21650 Human alb
7	465	100.0	674	ADH21650	Adh21650 Human alb
8	465	100.0	915	ADW45204	Adw45204 K. lactis
9	341.5	73.4	669	ADFI16144	Adfi16144 Human alb
10	341.5	73.4	669	ADH21622	Adh21622 Human alb
11	341	73.3	145	ADFI1688	Adfi1688 Human GLP
12	341	73.3	145	ADH21888	Adh21888 Human alb
13	341	73.3	730	ADFI16525	Adfi16525 Human alb
14	341	73.3	730	ADH21813	Adh21813 Human alb
15	335.5	72.2	669	ADFI16150	Adfi16150 Human alb
16	335.5	72.2	669	ADH21628	Adh21628 Human alb
17	335	72.0	145	ADFI1690	Adfi1690 Human alb
18	335	72.0	145	ADH21890	Adh21890 Human GLP
19	335	72.0	730	ADFI16527	Adfi16527 Human alb
20	335	72.0	730	ADH21815	Adh21815 Human alb
21	329.5	70.9	669	ADFI16149	Adfi16149 Human alb
22	329.5	70.9	669	ADFI16148	Adfi16148 Human alb
23	329.5	70.9	669	ADFI16145	Adfi16145 Human alb
24	329.5	70.9	669	ADFI16146	Adfi16146 Human alb

25	329.5	70.9	669	7	ADH21624	Adh21624 Human alb
26	329.5	70.9	669	7	ADH21626	Adh21626 Human alb
27	329.5	70.9	669	7	ADH21623	Adh21623 Human alb
28	329.5	70.9	669	7	ADH21627	Adh21627 Human alb
29	324	69.7	83	7	ADFI16687	Adfi16687 Human alb
30	324	69.7	83	7	ADH21887	Adh21887 Human GLP
31	324	69.7	668	7	ADFI16524	Adfi16524 Human alb
32	324	69.7	668	7	ADH21812	Adh21812 Human alb
33	319	68.6	77	7	ADFI16689	Adfi16689 Human alb
34	319	68.6	77	7	ADH21889	Adh21889 Human GLP
35	319	68.6	662	7	ADFI16526	Adfi16526 Human alb
36	319	68.6	662	7	ADH21814	Adh21814 Human alb
37	318	68.4	83	7	ADFI16691	Adfi16691 Human GLP
38	318	68.4	83	7	ADH21891	Adh21891 Human alb
39	318	68.4	668	7	ADFI16528	Adfi16528 Human alb
40	318	68.4	668	7	ADH21816	Adh21816 Human alb
41	317.5	68.3	664	7	ADFI16510	Adfi16510 Human alb
42	317.5	68.3	664	7	ADH21801	Adh21801 Human alb
43	317	68.2	647	9	ADW45208	Adw45208 K. lactis
44	315.5	67.8	663	7	ADFI16512	Adfi16512 Human alb
45	315.5	67.8	663	7	ADH21803	Adh21803 Human alb

ALIGNMENTS

RESULT 1
ID ADFI16195
ADFI16195 standard; protein; 89 AA.

AC ADFI16195;
XX
DT 12-FEB-2004 (first entry)
XX

DE Human albumin fusion protein-related protein SegID1282.
XX

XX albumin fusion protein; albumin activity; human serum albumin;
XX serum osmotic pressure; shelf-life; stability; antidiabetic;
KW gene therapy; diabetes mellitus; human.

XX
OS Homo sapiens.
XX
PN WO2003060071-A2.
XX

PD 24-JUL-2003.
XX
PF 23-DEC-2002; 2002WO-US040891.
XX

XX 21-DEC-2001; 2001US-0341811P.
PR

PR 24-JAN-2002; 2002US-0350358P.
PR

PR 26-JAN-2002; 2002US-0351360P.
PR

PR 26-FEB-2002; 2002US-0359370P.
PR

PR 28-FEB-2002; 2002US-0360000P.
PR

PR 27-MAR-2002; 2002US-0367500P.
PR

PR 08-APR-2002; 2002US-0370227P.
PR

PR 10-MAY-2002; 2002US-0378950P.
PR

PR 24-MAY-2002; 2002US-0382617P.
PR

PR 28-MAY-2002; 2002US-0383123P.
PR

PR 05-JUN-2002; 2002US-0385708P.
PR

PR 10-JUL-2002; 2002US-0394625P.
PR

PR 24-JUL-2002; 2002US-0398008P.
PR

PR 09-AUG-2002; 2002US-0402713P.
PR

PR 13-AUG-2002; 2002US-0411355P.
PR

PR 18-SEP-2002; 2002US-0411426P.
PR

PR 18-SEP-2002; 2002US-0414984P.
PR

PR 02-OCT-2002; 2002US-0417611P.
PR

PR 11-OCT-2002; 2002US-0420246P.
PR

PR 23-OCT-2002; 2002US-0420246P.
PR

PR 05-NOV-2002; 2002US-0423623P.
PR

XX (HUMA-) HUMAN GENOME SCI INC.
XX (DELZ) DELTA BIOTECHNOLOGY LTD.
PA (PRIN-) PRINCIPAL PHARM CORP.
PA


```
XX XX Balance DJ, Turner AJ, Rosen CA, Haseltine WA;
PI XX
XX WPI; 2003-598517/56.
DR DR N-PSDB; ADP16194.
XX XX
PT New albumin fusion protein, useful for preparing a composition for
PT creating diabetes mellitus.
XX
PS Example 4; SEQ ID NO 1282; 24pp; English.
XX
CC This invention relates to a novel albumin fusion protein having albumin
CC or biological activity. Human serum albumin is responsible for a
CC significant proportion of the osmotic pressure of serum and also
CC functions as a carrier of endogenous and exogenous ligands. The fusion of
CC albumin to a therapeutic protein may increase shelf-life and stability of
CC the therapeutic protein. The albumin fusion protein of the invention may
CC allow production of compositions with antidiabetic activity whilst the
CC nucleotide sequence which encodes it may be useful for gene therapy. The
CC albumin fusion protein is useful for preparing a composition for treating
CC diabetes mellitus. The present sequence is that of a therapeutic protein
CC which was fused with human albumin to create a novel albumin fusion
CC protein of the invention. Note: The sequence data for this patent did not
CC form part of the printed specification, but was obtained in electronic
CC format directly from WIPO at ftp.wipo.int/pub/publishedpc_sequences
XX
XX Sequence 89 AA;
XX
XX Query Match 100.0%; Score 465; DB 7; Length 89;
XX Best Local Similarity 100.0%; Pred. No. 1.3e-45;
XX Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
QY 1 MNIFYFLFLSFVQGLIETHRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60
DB 1 MNIFYFLFLSFVQGLIETHRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60
QY 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGR 89
DB 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGR 89
XX
XX RESULT 2
XX ADH21652
XX ID ADH21652 standard; protein; 89 AA.
XX
XX AC ADH21652;
XX
XX DT 11-MAR-2004 (first entry)
XX
XX DB Human GLP-1(7-36(A8G))x2, SEQ ID NO:449.
XX
XX KW Fusion protein; human serum albumin; HSA; therapeutic protein;
XX shelf-life; in vitro biological activity; in vivo biological activity;
XX metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
XX diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
XX retinopathy; cardiovascular disorder; heart disease; renal disorder;
XX obesity; glucose level maintenance; weight loss; antidiabetic; cardiant;
XX anorectic; ophthalmological; gene therapy; mutant; mutein.
XX
XX OS Synthetic.
XX OS Homo sapiens.
XX
XX PN WO2003059934-A2.
XX
XX PD 24-JUL-2003.
XX
XX PF 23-DEC-2002; 2002WO-US040892.
XX
XX PR 21-DRC-2001; 2001US-0341811P.
XX PR 24-JAN-2002; 2002US-0350358P.
XX PR 26-FEB-2002; 2002US-0359370P.
XX PR 28-FEB-2002; 2002US-0360000P.
XX PR 27-MAR-2002; 2002US-0367500P.
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PR 08-APR-2002; 2002US-0370227P.
PR 10-MAY-2002; 2002US-0378950P.
PR 24-JUL-2002; 2002US-0398008P.
PR 09-AUG-2002; 2002US-0402131P.
PR 13-AUG-2002; 2002US-0402708P.
PR 18-SEP-2002; 2002US-0411355P.
PR 02-OCT-2002; 2002US-041984P.
PR 11-OCT-2002; 2002US-0417611P.
PR 23-OCT-2002; 2002US-0420246P.
PR 05-NOV-2002; 2002US-0423623P.
XX
XX (HUMA-) HUMAN GENOME SCI INC.
XX
XX PI Rosen CA, Haseltine WA;
XX
XX WPI; 2003-598501/56.
DR DR N-PSDB; ADH21651.
XX
XX PT New albumin fusion protein, useful for preparing a composition for
XX creating diabetes mellitus.
XX
XX PT Disclosure; SEQ ID NO 449; 1086pp; English.
XX
XX CC The invention relates to fusion proteins comprising human serum albumin
XX (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
XX antibody or peptide or their variants or fragments. The therapeutic
XX protein may be fused to the N-terminus, the C-terminus or both termini of
XX albumin via a linker. The albumin component of the fusion proteins
XX prolongs the shelf-life and the in vitro and vivo biological activity of
XX the proteins compared with those of the corresponding therapeutic
XX proteins on their own. The invention also relates to nucleic acids
XX encoding albumin fusion proteins, vectors and host cells comprising an
XX albumin fusion protein nucleic acid, compositions and kits comprising an
XX albumin fusion protein, the method of extending the shelf-life of a
XX therapeutic protein by fusion with albumin, and the treatment of disease
XX using an albumin fusion protein. The albumin fusion proteins may be used
XX in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
XX related conditions. Specifically the albumin fusion proteins may be used
XX to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
XX (especially neuropathy), retinopathy, cardiovascular disorders
XX (especially heart disease, renal disorders and obesity. The proteins may
XX also be used in a method of maintaining a basal glucose level in a
XX patient and in a method for losing weight. The present sequence is
XX related to the invention.
XX
XX XX Sequence 89 AA;
XX
XX Query Match 100.0%; Score 465; DB 7; Length 89;
XX Best Local Similarity 100.0%; Pred. No. 1.3e-45;
XX Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
QY 1 MNIFYFLFLSFVQGLIETHRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60
DB 1 MNIFYFLFLSFVQGLIETHRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60
QY 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGR 89
DB 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGR 89
XX
XX RESULT 3
XX ADP17044
XX ID ADP17044 standard; protein; 673 AA.
XX
XX AC ADP17044;
XX
XX DT 12-FEB-2004 (first entry)
XX
XX DB Human albumin therapeutic fusion protein SegID2170.
XX
XX KW albumin fusion protein; albumin activity; human serum albumin;
XX serum osmotic pressure; shelf-life; stability; antidiabetic;
XX gene therapy; diabetes mellitus; human.
```

XX Chimeric.
 OS Homo sapiens.
 PN WO2003060071-A2.
 PD 24-JUL-2003.
 PF 23-DEC-2002; 2002WO-US040891.
 XX 21-DEC-2001; 2001US-0341811P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 28-JAN-2002; 2002US-0351360P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360007P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-MAY-2002; 2002US-0382617P.
 PR 28-MAY-2002; 2002US-0383123P.
 PR 05-JUN-2002; 2002US-0385708P.
 PR 10-JUL-2002; 2002US-0394625P.
 PR 24-JUL-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 18-SEP-2002; 2002US-0411426P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX (HUMA-) HUMAN GENOME SCI INC.
 PA (DELZ) DELTA BIOTECHNOLOGY LTD.
 PA (PRIN-) PRINCIPAL PHARM CORP.
 XX Balance DJ, Turner AJ, Rosen CA, Haseltine WA;
 PI WPI; 2003-598517/56.
 DR New albumin fusion protein, useful for preparing a composition for
 XX treating diabetes mellitus.
 PT
 XX Example 4; SEQ ID NO 2170; 24pp; English.
 PS This invention relates to a novel albumin fusion protein having albumin
 XX or biological activity. Human serum albumin is responsible for a
 CC significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion of
 CC albumin to a therapeutic protein may increase shelf-life and stability of
 CC the therapeutic protein. The albumin fusion protein of the invention may
 CC allow production of compositions with antidiabetic activity whilst the
 CC nucleotide sequence which encodes it may be useful for gene therapy. The
 CC albumin fusion protein is useful for preparing a composition for treating
 CC diabetes mellitus. The present sequence is the amino acid sequence of a
 CC novel full-length human albumin therapeutic fusion protein of the
 CC invention. Note: The sequence data for this patent did not form part of
 CC the printed specification, but was obtained in electronic format directly
 CC from WIPO at ftp.wipo.int/pub/publishedpct_sequences
 XX
 SQ Sequence 673 AA;
 Query Match 100.0%; Score 465; DB 7; Length 673;
 Best Local Similarity 100.0%; Pred. No. 1,4e-44;
 Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

RESULT 4
 ADH22037
 ID ADH22037 standard; protein; 673 AA.
 XX
 AC ADH22037;
 XX
 DT 11-MAR-2004 (first entry)
 XX
 DE Mouse albumin/human GLP-1(7-36(A8G)) fusion protein, SEQ ID NO:834.
 XX
 XX Fusion protein; human serum albumin; HSA; therapeutic protein;
 XX shelf-life; in vitro biological activity; in vivo biological activity;
 KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
 KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiact;
 KW anorectic; ophthalmological; gene therapy; mouse serum albumin.
 XX
 OS Synthetic.
 OS Chimeric.
 OS Homo sapiens.
 OS Mus sp.
 XX WO2003059934-A2.
 XX
 PD 24-JUL-2003.
 XX
 PF 23-DEC-2002; 2002WO-US040892.
 XX
 PR 21-DEC-2001; 2001US-0341811P.
 PR 24-JAN-2002; 2002US-0350358P.
 PR 26-FEB-2002; 2002US-0359370P.
 PR 28-FEB-2002; 2002US-0360007P.
 PR 27-MAR-2002; 2002US-0367500P.
 PR 08-APR-2002; 2002US-0370227P.
 PR 10-MAY-2002; 2002US-0378950P.
 PR 24-JUN-2002; 2002US-0398008P.
 PR 09-AUG-2002; 2002US-0402131P.
 PR 13-AUG-2002; 2002US-0402708P.
 PR 18-SEP-2002; 2002US-0411355P.
 PR 02-OCT-2002; 2002US-0414984P.
 PR 11-OCT-2002; 2002US-0417611P.
 PR 23-OCT-2002; 2002US-0420246P.
 PR 05-NOV-2002; 2002US-0423623P.
 XX
 XX (HUMA-) HUMAN GENOME SCI INC.
 PA
 PI Rosen CA, Haseltine WA;
 XX WPI; 2003-598501/56.
 DR New albumin fusion protein, useful for preparing a composition for
 XX treating diabetes mellitus.
 PT
 XX Disclosure; SEQ ID NO 834; 1086pp; English.
 PS
 XX
 XX The invention relates to fusion proteins comprising human serum albumin
 CC (ADH21530) and a therapeutic polypeptide such as a therapeutic protein,
 CC antibody or peptide or their variants or fragments. The therapeutic
 CC protein may be fused to the N-terminus, the C-terminus or both terminal of
 CC albumin via a linker. The albumin component of the fusion proteins
 CC prolongs the shelf-life and the in vitro and vivo biological activity of
 CC the proteins compared with those of the corresponding therapeutic
 CC proteins on their own. The invention also relates to nucleic acids
 CC encoding albumin fusion proteins, vectors and host cells comprising an
 CC albumin fusion protein nucleic acid, compositions and kits comprising an
 CC albumin fusion protein, the method of extending the shelf-life of a
 CC therapeutic protein by fusion with albumin, and the treatment of disease
 CC using an albumin fusion protein. The albumin fusion protein may be used
 CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
 CC related conditions. Specifically the albumin fusion proteins may be used

CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
 CC (especially neuropathy), retinopathy, cardiovascular disorders
 CC (especially heart disease, renal disorders and obesity. The proteins may
 CC also be used in a method of maintaining a basal glucose level in a
 CC patient and in a method for losing weight. The present sequence is
 CC related to the invention.

XX Sequence 673 AA;

Query Match 100.0%; Score 465; DB 7; Length 673;
 Best Local Similarity 100.0%; Pred. No. 1.4e-44;
 Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNIFYFLFLSFVQGLBHTHRGSLDKRHGEGFTSDVSYLGGQAAKEFIAMLVKGRH 60
 DB 1 MNIFYFLFLSFVQGLBHTHRGSLDKRHGEGFTSDVSYLGGQAAKEFIAMLVKGRH 60

QY 61 GEGFTSDVSYLGGQAAKEFIAMLVKGR 89
 DB 61 GEGFTSDVSYLGGQAAKEFIAMLVKGR 89

RESULT 5
 ADH216193
 ID ADH216193 standard; protein; 674 AA.

XX AC ADF16193;

XX DT 12-FEB-2004 (first entry)

XX DE Human albumin therapeutic fusion protein SegID1280.

KM albumin fusion protein; albumin activity; human serum albumin;
 KM serum osmotic pressure; shelf-life; stability; antidiabetic;
 KM gene therapy; diabetes mellitus; human.

XX OS Chimeric.
 OS Homo sapiens.

XX PN WO2003060071-A2.

XX PD 24-JUL-2003.

XX PF 23-DEC-2002; 2002WO-US040891.

XX PR 21-DEC-2001; 2001US-0341811P.

XX PR 24-JAN-2002; 2002US-0350358P.

XX PR 26-FEB-2002; 2002US-0351360P.

XX PR 26-FEB-2002; 2002US-0359370P.

XX PR 27-MAR-2002; 2002US-0360000P.

XX PR 08-APR-2002; 2002US-0370227P.

XX PR 10-MAY-2002; 2002US-0378950P.

XX PR 24-MAY-2002; 2002US-0382617P.

XX PR 28-MAY-2002; 2002US-0383123P.

XX PR 05-JUN-2002; 2002US-0385708P.

XX PR 10-JUL-2002; 2002US-0394625P.

XX PR 24-JUL-2002; 2002US-0398008P.

XX PR 09-AUG-2002; 2002US-0402131P.

XX PR 13-AUG-2002; 2002US-0402708P.

XX PR 18-SEP-2002; 2002US-0411355P.

XX PR 18-SEP-2002; 2002US-0411426P.

XX PR 02-OCT-2002; 2002US-0414984P.

XX PR 11-OCT-2002; 2002US-0417611P.

XX PR 23-OCT-2002; 2002US-0420246P.

XX PR 05-NOV-2002; 2002US-0423623P.

XX PA (HUMA-) HUMAN GENOME SCI INC.
 PA (DELZ-) DELTA BIOTECHNOLOGY LTD.
 PA (PRIN-) PRINCIPRIA PHARM CORP.

XX PI Balance DJ, Turner AJ, Rosen CA, Haseltine WA;
 XX

DR WPI; 2003-598517/56.

XX New albumin fusion protein, useful for preparing a composition for
 PT treating diabetes mellitus.

XX Example 4; SEQ ID NO 1280; 24pp; English.

XX This invention relates to a novel albumin fusion protein having albumin
 CC or biological activity. Human serum albumin is responsible for a
 CC significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion of
 CC albumin to a therapeutic protein may increase shelf-life and stability of
 CC the therapeutic protein. The albumin fusion protein of the invention may
 CC allow production of compositions with antidiabetic activity whilst the
 CC nucleotide sequence which encodes it may be useful for gene therapy. The
 CC albumin fusion protein is useful for preparing a composition for treating
 CC diabetes mellitus. The present sequence is the amino acid sequence of a
 CC novel full-length human albumin therapeutic fusion protein of the
 CC invention. Note: The sequence data for this patent did not form part of
 CC the printed specification, but was obtained in electronic format directly
 CC from WIPO at ftp.wipo.int/pub/publshdepot_sequences

XX Sequence 674 AA;

Query Match 100.0%; Score 465; DB 7; Length 674;
 Best Local Similarity 100.0%; Pred. No. 1.4e-44;
 Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNIFYFLFLSFVQGLBHTHRGSLDKRHGEGFTSDVSYLGGQAAKEFIAMLVKGRH 60
 DB 1 MNIFYFLFLSFVQGLBHTHRGSLDKRHGEGFTSDVSYLGGQAAKEFIAMLVKGRH 60

QY 61 GEGFTSDVSYLGGQAAKEFIAMLVKGR 89
 DB 61 GEGFTSDVSYLGGQAAKEFIAMLVKGR 89

RESULT 6
 ADH21650
 ID ADH21650 standard; protein; 674 AA.

XX AC ADH21650;

XX DT 11-MAR-2004 (first entry)

XX DE Human albumin/GLP-1(7-36(A8G))x2 fusion protein, SEQ ID NO:447.

KM Fusion protein; human serum albumin; HSA; therapeutic protein;
 KM shelf-life; in vitro biological activity; in vivo biological activity;
 KM metabolic disorder; endocrine disorder; diabetes; type 1; type 2;
 KM diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
 KM retinopathy; cardiovascular disorder; heart disease; renal disorder;
 KM obesity; glucose level maintenance; weight loss; antidiabetic; cardiant;
 KM anorectic; ophthalmological; gene therapy.

XX OS Synthetic.

XX OS Chimeric.

XX OS Homo sapiens.

XX PN WO2003059934-A2.

XX PD 24-JUL-2003.

XX PF 23-DEC-2002; 2002WO-US040892.

XX PR 21-DEC-2001; 2001US-0341811P.

XX PR 24-JAN-2002; 2002US-0350358P.

XX PR 26-FEB-2002; 2002US-0359370P.

XX PR 26-FEB-2002; 2002US-0360000P.

XX PR 27-MAR-2002; 2002US-0367500P.

XX PR 08-APR-2002; 2002US-0370227P.

XX PR 10-MAY-2002; 2002US-0378950P.

XX PR 24-JUL-2002; 2002US-0398008P.

[illegible]

Qy 68 DVSSYLEGQAAKEFIAMLVKGR 89
|||||
Db 124 DVSSYLEGQAAKEFIAMLVKGR 145

RESULT 13

ADP16525
ID ADP16525 standard; protein; 730 AA.

XX ADF16525;

XX 12-FEB-2004 (first entry)

DE Human albumin therapeutic fusion protein SeqID1622.

XX albumin fusion protein; albumin activity; human serum albumin;
KM serum osmotic pressure; shelf-life; stability; antidiabetic;
KW gene therapy; diabetes mellitus; human.

XX Chimeric.

OS Homo sapiens.

XX WO2003060071-A2.

XX 24-JUL-2003.

XX 23-DEC-2002; 2002WO-US040891.

XX 21-DEC-2001; 2001US-0341811P.

XX 24-JAN-2002; 2002US-0350358P.

XX 26-FEB-2002; 2002US-0351360P.

XX 26-FEB-2002; 2002US-0359370P.

XX 27-MAR-2002; 2002US-0367500P.

XX 08-APR-2002; 2002US-0370227P.

XX 10-MAY-2002; 2002US-0378950P.

XX 24-MAY-2002; 2002US-0382617P.

XX 28-MAY-2002; 2002US-0383123P.

XX 05-JUN-2002; 2002US-0385708P.

XX 10-JUL-2002; 2002US-0394625P.

XX 24-JUL-2002; 2002US-0398008P.

XX 09-AUG-2002; 2002US-0402131P.

XX 13-AUG-2002; 2002US-0402708P.

XX 18-SEP-2002; 2002US-0411355P.

XX 18-SEP-2002; 2002US-041426P.

XX 02-OCT-2002; 2002US-0414984P.

XX 11-OCT-2002; 2002US-0417611P.

XX 23-OCT-2002; 2002US-0420246P.

XX 05-NOV-2002; 2002US-0423623P.

XX (HUMA-) HUMAN GENOME SCI INC.

PA (DELZ-) DELTA BIOTECHNOLOGY LTD.

PA (PRIN-) PRINCIPIA PHARM CORP.

XX Balance DJ, Turner AJ, Rosen CA, Haseltine WA;

XX WPI; 2003-598517/56.

PT New albumin fusion protein, useful for preparing a composition for
treating diabetes mellitus.

XX Example 4; SEQ ID NO 1622; 24pp; English.

XX This invention relates to a novel albumin fusion protein having albumin
or biological activity. Human serum albumin is responsible for a

XX significant proportion of the osmotic pressure of serum and also

XX functions as a carrier of endogenous and exogenous ligands. The fusion of

XX albumin to a therapeutic protein may increase shelf-life and stability of

XX the therapeutic protein. The albumin fusion protein of the invention may

XX allow production of compositions with antidiabetic activity whilst the

XX nucleotide sequence which encodes it may be useful for gene therapy. The

XX albumin fusion protein is useful for preparing a composition for treating

CC diabetes mellitus. The present sequence is the amino acid sequence of a
CC novel full-length human albumin therapeutic fusion protein of the
CC invention. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from Wipo at ftp.wipo.int/pub/publishneopt_sequences

XX SQ Sequence 730 AA;

Query Match 73 3%; Score 341; DB 7; Length 730;

Best Local Similarity 81.7%; Pred. No.2.8e-30; Mismatches 11; Gaps 0;

Matches 67; Conservative 4; Indels 0; Gaps 0;

Qy 8 LFLSPVQGLEHTRRSGSDPKRGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTFS 67

Db 64 LFLINTTASIAAKEBGSLDKRGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTFS 123

Qy 68 DVSSYLEGQAAKEFIAMLVKGR 89

Db 124 DVSSYLEGQAAKEFIAMLVKGR 145

RESULT 14

ADH21813
ID ADH21813 standard; protein; 730 AA.

XX ADH21813;

XX 11-MAR-2004 (first entry)

XX Human albumin/GUP-1(7-36(A8G)) fusion protein, SEQ ID NO:610.

XX Fusion protein; human serum albumin; HSA; therapeutic protein;
KM shelf-life; in vitro biological activity; in vivo biological activity;
KW metabolic disorder; endocrine disorder; diabetes; type 1; type 2;

KW diabetes-related condition; hyperglycaemia; neural disorder; neuropathy;
KW retinopathy; cardiovascular disorder; heart disease; renal disorder;
KW obesity; glucose level maintenance; weight loss; antidiabetic; cardiant;

XX anorectic; ophthalmological; gene therapy.

XX Synthetic.

OS Chimeric.

XX Homo sapiens.

XX WO2003059934-A2.

XX 24-JUL-2003.

XX 23-DEC-2002; 2002WO-US040892.

XX 21-DEC-2001; 2001US-0341811P.

XX 24-JAN-2002; 2002US-0350358P.

XX 26-FEB-2002; 2002US-0359370P.

XX 28-FEB-2002; 2002US-0360000P.

XX 27-MAR-2002; 2002US-0367500P.

XX 08-APR-2002; 2002US-0370227P.

XX 10-MAY-2002; 2002US-0378950P.

XX 24-JUL-2002; 2002US-0398008P.

XX 09-AUG-2002; 2002US-0402131P.

XX 13-AUG-2002; 2002US-0402708P.

XX 18-SEP-2002; 2002US-0411355P.

XX 02-OCT-2002; 2002US-0414984P.

XX 11-OCT-2002; 2002US-0417611P.

XX 23-OCT-2002; 2002US-0420246P.

PT New albumin fusion protein, useful for preparing a composition for
treating diabetes mellitus.

XX Example 4; SEQ ID NO 1622; 24pp; English.

XX This invention relates to a novel albumin fusion protein having albumin
or biological activity. Human serum albumin is responsible for a

XX significant proportion of the osmotic pressure of serum and also

XX functions as a carrier of endogenous and exogenous ligands. The fusion of

XX albumin to a therapeutic protein may increase shelf-life and stability of

XX the therapeutic protein. The albumin fusion protein of the invention may

XX allow production of compositions with antidiabetic activity whilst the

XX nucleotide sequence which encodes it may be useful for gene therapy. The

XX albumin fusion protein is useful for preparing a composition for treating

XX Disclosure; SEQ ID NO 610; 1086pp; English.
PS
XX
CC The invention relates to fusion proteins comprising human serum albumin
CC (ADH1530) and a therapeutic polypeptide such as a therapeutic protein,
CC antibody or peptide or their variants or fragments. The therapeutic
CC protein may be fused to the N-terminus, the C-terminus or both termini of
CC albumin via a linker. The albumin component of the fusion proteins
CC prolongs the shelf-life and the in vitro and vivo biological activity of
CC the proteins compared with those of the corresponding therapeutic
CC proteins on their own. The invention also relates to nucleic acids
CC encoding albumin fusion proteins, vectors and host cells comprising an
CC albumin fusion protein nucleic acid, compositions and kits comprising an
CC albumin fusion protein, the method of extending the shelf-life of a
CC therapeutic protein by fusion with albumin, and the treatment of disease
CC using an albumin fusion protein. The albumin fusion proteins may be used
CC in the treatment of metabolic/endocrine disorders, diabetes and diabetes-
CC related conditions. Specifically the albumin fusion proteins may be used
CC to treat type 1 and type 2 diabetes, hyperglycaemia, neural disorders
CC (especially neuropathy), retinopathy, cardiovascular disorders
CC (especially heart disease, renal disorders and obesity. The proteins may
CC also be used in a method of maintaining a basal glucose level in a
CC patient and in a method for losing weight. The present sequence is
CC related to the invention.
XX
SQ Sequence 730 AA;

Query Match 73.3%; Score 341; DB 7; Length 730;
Best Local Similarity 81.7%; Pred. No. 2.8e-30; Mismatches 11; Gaps 0;
Matches 67; Conservative 4; Indels 0; Gaps 0;

Qy 8 LFLSFVQGLEHTRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTTS 67
| : : : : :
Db 64 LFLNTTASIAAKKEGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGEFTTS 123
| : : : : :
Qy 68 DVSSYLEGQAAKEFIAMLVKGR 89
| : : : : :
Db 124 DVSSYLEGQAAKEFIAMLVKGR 145
| : : : : :

RESULT 15
ADFL150
ID ADF16150 standard; protein; 669 AA.
XX
AC ADF16150;
XX
DT 12-FEB-2004 (first entry)
XX
DE Human albumin therapeutic fusion protein SegID1237.
XX
KM albumin fusion protein; albumin activity; human serum albumin;
KM serum osmotic pressure; shelf-life; stability; antidiabetic;
KM gene therapy; diabetes mellitus; human.
XX
XX Chimeric.
OS Homo sapiens.
XX
PN WO2003060071-A2.
XX
PD 24-JUL-2003.
XX
PF 23-DEC-2002; 2002MO-US040891.
XX
PR 21-DEC-2001; 2001US-0341811P.
PR 24-JAN-2002; 2002US-0350358P.
PR 28-JAN-2002; 2002US-0351360P.
PR 26-FEB-2002; 2002US-0359370P.
PR 28-FEB-2002; 2002US-0360000P.
PR 27-MAR-2002; 2002US-0367500P.
PR 08-APR-2002; 2002US-0370227P.
PR 10-MAY-2002; 2002US-0378950P.
PR 24-MAY-2002; 2002US-0382617P.
PR 28-MAY-2002; 2002US-0383123P.

PR 05-JUN-2002; 2002US-038708P.
PR 10-JUL-2002; 2002US-0394625P.
PR 24-JUL-2002; 2002US-0398008P.
PR 09-AUG-2002; 2002US-0402131P.
PR 13-AUG-2002; 2002US-0402708P.
PR 18-SEP-2002; 2002US-0411355P.
PR 18-SEP-2002; 2002US-0411426P.
PR 02-OCT-2002; 2002US-0414984P.
PR 11-OCT-2002; 2002US-0417611P.
PR 23-OCT-2002; 2002US-0420246P.
PR 05-NOV-2002; 2002US-0423623P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
PA (DEL2) DELTA BIOTECHNOLOGY LTD.
PA (PRIN-) PRINCIPAL PHARM CORP.
XX
PI Ballance DJ, Turner AJ, Rosen CA, Haseltine WA;
XX WPI, 2003-598517/56.
XX
PT New albumin fusion protein, useful for preparing a composition for
PT treating diabetes mellitus.
XX
PS Example 4; SEQ ID NO 1237; 24pp; English.
XX
CC This invention relates to a novel albumin fusion protein having albumin
CC or biological activity. Human serum albumin is responsible for a
CC significant proportion of the osmotic pressure of serum and also
CC functions as a carrier of endogenous and exogenous ligands. The fusion of
CC albumin to a therapeutic protein may increase shelf-life and stability of
CC the therapeutic protein. The albumin fusion protein of the invention may
CC allow production of compositions with antidiabetic activity whilst the
CC nucleotide sequence which encodes it may be useful for gene therapy. The
CC albumin fusion protein is useful for preparing a composition for treating
CC diabetes mellitus. The present sequence is the amino acid sequence of a
CC novel full-length human albumin therapeutic fusion protein of the
CC invention. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/publishedpt_sequences
XX
SQ Sequence 669 AA;

Query Match 72.2%; Score 335.5; DB 7; Length 669;
Best Local Similarity 78.2%; Pred. No. 1.1e-29; Mismatches 6; Indels 9; Gaps 1;
Matches 68; Conservative 4; Indels 9; Gaps 1;

Qy 3 IFYIFLSPVQGLEHTRRGSLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGE 62
| : : : : :
Db 7 ISLFLFSSAISR-----SLDKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRHGE 57
| : : : : :
Qy 63 GFTSDVSSYLEGQAAKEFIAMLVKGR 89
| : : : : :
Db 58 GFTSDVSSYLEGQAAKEFIAMLVKGR 84
| : : : : :

Search completed: April 19, 2006, 12:02:33
Job time : 21.1122 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 19, 2006, 12:02:52 ; Search time 4.04545 Seconds
(without alignments)
2116.769 Million cell updates/sec

Title: US-10-775-180-449

Perfect score: 465
Sequence: 1 MNIFYIFLFLISFVQGHHT.....SSYLEGQAAXEPIAMLVKGR 89

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : PIR 80.*
1: PIR1.*
2: PIR2.*
3: PIR3.*
4: PIR4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	247.5	53.2	180	1	GCBO
2	243.5	52.4	180	1	GCHU
3	243.5	52.4	180	2	A57294
4	241.5	51.9	180	1	GCHY
5	241.5	51.9	180	1	GCRT
6	240.5	51.7	180	1	GCGR
7	238.5	51.3	180	1	GCPR
8	230.5	49.6	180	1	GCRTU
9	225.5	48.5	151	1	GCCH
10	225.5	48.5	206	2	I51301
11	208.5	44.8	178	2	I51058
12	206	44.3	101	1	GCPRB
13	200.5	43.1	122	1	GCARF2
14	200.5	43.1	178	2	I51057
15	188.5	40.5	63	1	GCIDC
16	183	39.4	124	1	GCAP
17	182	39.1	72	1	GCAXA
18	179.5	38.6	87	1	GCPTIS
19	178.5	38.4	60	1	GCQNC
20	155	33.3	66	2	I51093
21	142	30.5	1146	2	S07915
22	142	26.2	30	2	GC1125
23	122	26.2	30	2	B61125
24	107	23.0	30	2	S44473
25	106	22.8	69	1	GCDG69
26	96	20.6	29	2	S07211
27	95	20.4	31	2	S44472
28	95	20.4	39	1	HWGH4G
29	94	20.2	29	1	GCDF

30	93	20.0	31	2	S44471	glucagon G1 - Nort
31	92	19.8	29	1	GCEN	glucagon - elephant
32	89	19.1	29	1	GCOPV	glucagon - North A
33	89	19.1	29	2	A91740	glucagon - turkey
34	89	19.1	29	2	C39258	glucagon - common
35	89	19.1	29	2	A91742	glucagon - Arabian
36	89	19.1	29	2	A91741	glucagon - rabbit
37	87	18.7	29	1	A61583	glucagon - ostrich
38	87	18.7	29	1	GCDC	glucagon - duck
39	87	18.7	29	1	GCRTS	glucagon - slider
40	87	18.7	29	2	C60840	glucagon I - Europ
41	86.5	18.6	290	2	S52860	neuropeptide pol-R
42	86	18.5	29	1	GCGB	glucagon - Chinchi
43	86	18.5	39	1	HWGH3Z	exendin-3 - Mexica
44	85	18.3	29	1	GCPLF	glucagon - Europea
45	85	18.3	29	2	A61135	glucagon - bigeye

ALIGNMENTS

RESULT 1

GCBO
glucagon precursor - bovine
N/Contains: glidentin-related peptide; glucagon; glucagon-like peptide 1; glucagon-like
C/Species: Bos primigenius taurus (cattle)
C/Date: 14-Nov-1983 #sequence revision 14-Nov-1983 #text_change 20-Mar-1998
C/Accession: A93970; A92081; A01538
R/Lopez, L.C.; Frazier, M.L.; Su, C.-J.; Kumar, A.; Saunders, G.F.
Proc. Natl. Acad. Sci. U.S.A. 80, 5485-5489, 1983
A/Title: Mammalian pancreatic preproglucagon contains three glucagon-related peptides.
A/Reference number: A93970; PMID:8329996; PMID:6577439
A/Accession: A93970
A/Molecule type: mRNA
A/Residues: 1-180 <LOP>
A/Cross-references: UNIPARC:UPI00001734FF; EMBL:K00107
R/Bromer, W.W.; Boucher, M.E.; Kofenberger Jr., J.E.
J. Biol. Chem. 246, 2822-2827, 1971
A/Title: Amino acid sequence of bovine glucagon.
A/Reference number: A92081; PMID:71166445; PMID:5102927
A/Accession: A92081
A/Molecule type: protein
A/Residues: 53-81 <BRO>
A/Cross-references: UNIPARC:UPI000002C586
C/Superfamily: glucagon
C/Keywords: amidated carboxyl end; carbohydrate metabolism; duplication; hormone; pancr
F/1-20/Domain: signal sequence #status predicted <SIG>
F/21-180/Product: proglucagon #status predicted <PGC>
F/21-50/Region: glidentin-related peptide #status predicted
F/53-81/Product: glucagon #status experimental <GCN>
F/98-127/Product: glucagon-like peptide 1 #status experimental <GL1>
F/146-178/Product: glucagon-like peptide 2 #status predicted <GL2>
F/127/Modified site: amidated carboxyl end (Arg) (amide in mature form from following 9

Query Match 53.2%; Score 247.5; DB 1; Length 180;

Best Local Similarity 42.4%; Pred. No. 3e-18;

Matches 53; Conservative 16; Mismatches 19; Indels 37; Gaps 3;

QY	2	NIPIYIFLFLISFVQGHHT	LEHTHRGSI	DKHGGTFTSDV	39
DB	3	SLYFVAGLFWLVQGSWQSRSLQNTBKRSSFPAPQTDPLCDPDQINEDKXHSQGTFTSDV			62
QY	40	SSYLEGQAAXEPIAMLVK	GRGCGFTSDVSSYLEGQAAXEPIAM		84
DB	63	SKYDSRRADPFVQWIMNTKRNKNNTAKRHDEFEHAEGETFTSDVSSYLEGQAAXEPIAM			122
QY	85	LVKGR 89			
DB	123	LVKGR 127			
RESULT 2					
GCHU					

glucagon precursor [validated] - human
N:Contains: glicentin, glicentin-related polypeptide (GRP); glucagon; glucagon-like peptide 1 (GLP1)
C:Species: Homo sapiens (man)
C:Date: 24-Apr-1984 #sequence, revision 31-Mar-1993 #text change 09-Jul-2004
C:Accession: A24377, A44197, A30875, A32614, A01541, S23309
R:White, J.W.; Saunders, G.F.
Nucleic Acids Res. 14, 4719-4730, 1986
A:Title: Structure of the human glucagon gene.
A:Reference number: A24377; MUID:86259053; PMID:3725587
A:Accession: A24377
A:Molecule type: DNA
A:Residues: 1-180 <WHI>
A:Cross-references: UNIPROT:P01275; UNIPARC:UPI000012B832; GB:X03991
R:Bell, G.I.; Sanchez-Pescador, R.; Laybourn, P.J.; Najjarian, K.C.
Nature 304, 368-371, 1983
A:Title: Exon duplication and divergence in the human preproglucagon gene.
A:Reference number: A44197; MUID:83271477; PMID:6877358
A:Accession: A44197
A:Molecule type: DNA
A:Residues: 1-179 <BEL>
A:Cross-references: UNIPARC:UPI000016A9A7; GB:V01515; NID:931777; PIDN:CAA24759.1; PID:9
R:Drucker, D.J.; Asa, S.
J. Biol. Chem. 263, 13475-13478, 1988
A:Title: Glucagon gene expression in vertebrate brain.
A:Reference number: A30875; MUID:88330860; PMID:2901414
A:Accession: A30875
A:Molecule type: mRNA
A:Residues: 1-180 <DRU>
A:Cross-references: UNIPARC:UPI000012B832; GB:J04040; NID:9183269; PIDN:AAA52567.1; PID:9
R:Orskov, C.; Bersani, M.; Johnsen, A.H.; Højrup, P.; Holst, J.J.
J. Biol. Chem. 264, 12826-12829, 1989
A:Title: Complete sequences of glucagon-like peptide-1 from human and pig small intestine
A:Reference number: A92732; MUID:89327238; PMID:2753890
A:Accession: A32614
A:Molecule type: protein
A:Residues: 98-127 <ORS>
A:Cross-references: UNIPARC:UPI0000032E2A
R:Thomsen, J.; Kristiansen, K.; Bruntfeldt, K.; Sundby, F.
FEBS Lett. 21, 315-319, 1972
A:Title: The amino acid sequence of human glucagon.
A:Reference number: A91373
A:Accession: A01541
A:Molecule type: protein
A:Residues: 53-81 <THO>
A:Cross-references: UNIPARC:UPI000002C586
R:Taught, A.; Takamoto, K.; Kamo, M.; Iwade, H.
Eur. J. Biochem. 206, 691-696, 1992
A:Title: C-terminal sequencing of protein. A novel partial acid hydrolysis and analysis
A:Reference number: S23188; MUID:92298996; PMID:1606956
A:Accession: S23309
A:Molecule type: protein
A:Residues: 53-81 <TSU>
A:Cross-references: UNIPARC:UPI000002C586
C:Comment: in pancreatic alpha-cells, proglucagon is processed to glicentin-related polypeptide 1, proglucagon is processed to truncated glucagon-like peptide 1, glucagon-dulin.
C:Genetics:
A:Gene: GDB:GCG
A:Cross-references: GDB:119265; OMIM:138030
A:Map position: 2q36-q37
A:introns: 31/2; 85/2; 131/2; 179/2
C:Superfamily: glucagon
C:Keywords: amidated carboxyl end; carbohydrate metabolism; duplication; hormone; interest
P:1-20/Domain: signal sequence #status predicted <SIG>
P:21-180/Product: proglucagon #status experimental <PGC>
P:21-89/Product: glicentin #status experimental <GLN>
P:21-50/Product: glicentin-related polypeptide #status predicted <GRP>
P:53-89/Product: oxyntomodulin #status experimental <OXN>
P:53-81/Product: glucagon #status experimental <GCN>
P:92-178/Product: major proglucagon fragment #status experimental <MPGF>
P:92-127/Product: glucagon-like peptide 1 #status experimental <GLI>
P:98-127/Product: truncated glucagon-like peptide 1 #status experimental <TGL>

F,127/Modified site: amidated carboxyl end (Arg) (amide in mature form from following gl
F,146-178/Product: glucagon-like peptide 2 #status predicted <G2>
Query Match: 52.4%; Score 243.5; DB 1; Length 180;
Best Local Similarity 42.4%; Pred. No. 7, 6e-18;
Matches 53; Conservative 15; Mismatches 20; Indels 37; Gaps 3;
QY 2 NIPYIFLEFLISFVG-----LEHTRRG-----SLDKRHGEFTFSIDV 39
Db 3 SIYPAGHGVFMVLVQOSWORSLODTEKSRSPASQADPLSDPDMQNDKRRHSQGTFTSDY 62
QY 40 SSYLEGQAAKEFIAMLVK-----GRHGEFTFSIDVSSYLEGQAAKEFIAM 84
Db 63 SKYLDSRRARQDPVQMLMTKRRNNNTAKRHDDEPRHAEGRFTFSVSSYLEGQAAKEFIAM 122
QY 85 LVKGR 89
Db 123 LVKGR 127

RESULT 3
A57294

glucagon precursor - mouse
C:Species: Mus musculus (house mouse)
C:Date: 01-Dec-1995 #sequence_revision 01-Dec-1995 #text_change 09-Jul-2004
C:Accession: A57294; S49903
R:Rochebery, M.E.; Ellertson, C.D.; Klein, K.; Zhou, Y.; Lindberg, I.; McDonald, J.K.;
J. Biol. Chem. 270, 10136-10146, 1995
J1:Title: Processing of mouse proglucagon by recombinant prohormone convertase 1 and immu
A1:Reference number: A57294; MUID:95247722; PMID:7730317
A1:Accession: A57294
A1:Status: preliminary
A1:Molecule type: mRNA
A1:Residues: 1-180 <ROT>
A1:Cross-references: UNIPROT:P55095; UNIPARC:UPI000000192D; EMBL:Z46845; NID:g559880; FID
C1:Superfamily: glucagon
C1:Keywords: carbohydrate metabolism; duplication; hormone; pancreas

Query Match

Best Local Similarity 43.5%; Pred.NO. 7.6e-18;
Matches 54; Conservative 13; Mismatches 20; Indels 37; Gaps 3;

3 IYIFLPLSPVGG-----LEHTHRG-----SLDKRHGEFTSDVS 40

4 IYFVAGLLIMLVGSGWQHAIQDTEENRSPASQTEAHEDPDEMNEDEKHSQGTFTSDYS 63

41 SYLEGQAAKEFIAMLVK-----GRHGEGFTSDVSSYLEGQAAKEFIAML 85

64 KYIDSRADQDFVQWMLNTKKNRNNIKRHDEEERHAEGETTSDVSSYLEGOAKEFIAML 123

86 VKGR 89

124 VKGR 127

RESULT 4

Contains: qlcentin-r

Species: Mesocricetus
Date: 13-Jun-1983 #se

Accession: A01539
Bell, G.I.; Santerre,

Signature 302, 716-718, 1997

;Reference number: A01539
;Accession: A01539

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Molecule type: INRNA
Residues: 1-180 <BEL>
Cross-references: INT

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Keywords: amidated calcium; Superfamily: glucagonom

;1-20/Domain: signal s

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F/21-180/Product: proglucagon #status predicted <PGC>
F/21-50/Region: glucagon-related peptide #status predicted
F/53-81/Product: glucagon #status predicted <GCN>
F/98-127/Product: glucagon-like peptide 1 #status predicted <GL1>
F/146-180/Product: glucagon-like peptide 2 #status predicted <GL2>
F/127/Modified site: amidated carboxyl end (Arg) (amide in mature form from following gl

Query Match          51.9%; Score 241.5; DB 1; Length 180;
Best Local Similarity 60.3%; Pred. No. 1.2e-17;
Matches 47; Conservative 7; Mismatches 9; Indels 15; Gaps 1;

OY 27 DKRHGEGFTSDVSYLEGQAKKEFIAMLVK-----GRHGEFTSDVSS 71
    |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 50 DKRHSGCTFTSDSKTLDSSRAQDFVQWLMNTKRNNNIAKRHDEFERBAEGFTSDVSS 109
    |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:

OY 72 YLEGQAKKEFIAMLVKGR 89
    |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 110 YLEGQAKKEFIAMLVKGR 127

RESULT 5
GCRT
glucagon precursor - rat
N/Contains: glucagon-related peptide; glucagon; glucagon-like peptide 1; glucagon-like
C/Species: Rattus norvegicus (Norway rat)
C/Date: 30-Sep-1987 #sequence revision 30-Sep-1987 #text_change 09-Jul-2004
C/Accession: A22655; A25190; A44198
R/Heinrich, G.; Gros, P.; Habener, J.F.
J. Biol. Chem. 259, 14082-14087, 1984
A/Title: Glucagon gene sequence: four of six exons encode separate functional domains of
A/Reference number: A22655; MUID:85054853; PMID:6094539
A/Accession: A22655
A/Molecule type: DNA
A/Residues: 1-180 <HRI>
A/Cross-references: UNIPROT:P06883; UNIPARC:UPI000002DB13; EMBL:K02809
A/Note: the authors translated the codon TTG for residue 10 as Glu and ACC for residue 5
R/Mojsov, S.; Heinrich, G.; Wilson, I.B.; Ravazzola, M.; Orci, L.; Habener, J.F.
J. Biol. Chem. 261, 11880-11889, 1986
A/Title: Preproglucagon gene expression in pancreas and intestine diversities at the lev
A/Reference number: A25190; MUID:86304324; PMID:3528148
A/Accession: A25190
A/Status: not compared with conceptual translation
A/Molecule type: mRNA
A/Residues: 1-180 <MOJ>
A/Cross-references: UNIPARC:UPI000002DB13
R/Heinrich, G.; Gros, P.; Lund, P.K.; Bentley, R.C.; Habener, J.F.
Endocrinology 115, 2176-2181, 1984
A/Title: Pre-proglucagon messenger ribonucleic acid: nucleotide and encoded amino acid s
A/Reference number: A44198; MUID:85051023; PMID:6548636
A/Accession: A44198
A/Status: preliminary
A/Molecule type: mRNA
A/Residues: 1-180 <H22>
A/Cross-references: UNIPARC:UPI000002DB13; GB:K02809; GB:K02810; GB:K02811; GB:K02812
C/Genetic:
A/Intons: 31/2; 85/2; 131/2; 179/2
C/Superfamily: glucagon
C/Keywords: amidated carboxyl end; carbohydrate metabolism; duplication; hormone; pancre
F/1-20/Domain: signal sequence #status predicted <SIG>
F/21-50/Product: proglucagon #status predicted <PGC>
F/53-81/Region: glucagon-related peptide #status predicted
F/98-127/Product: glucagon #status predicted <GCN>
F/146-180/Product: glucagon-like peptide 1 #status predicted <GL1>
F/127/Modified site: amidated carboxyl end (Arg) (amide in mature form from following gl

Query Match          51.9%; Score 241.5; DB 1; Length 180;
Best Local Similarity 60.3%; Pred. No. 1.2e-17;
Matches 47; Conservative 7; Mismatches 9; Indels 15; Gaps 1;

OY 27 DKRHGEGFTSDVSYLEGQAKKEFIAMLVK-----GRHGEFTSDVSS 71
    |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 50 DKRHSGCTFTSDSKTLDSSRAQDFVQWLMNTKRNNNIAKRHDEFERBAEGFTSDVSS 109
    |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:

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OY 72 YLEGQAKKEFIAMLVKGR 89
    |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 110 YLEGQAKKEFIAMLVKGR 127

RESULT 6
GCGP
glucagon precursor - guinea pig
N/Alternate names: oxyntomodulin
N/Contains: glucagon-related peptide; glucagon; glucagon-37 (oxyntomodulin); glucagon-]
C/Species: Cavia porcellus (guinea pig)
C/Date: 30-Sep-1987 #sequence revision 31-Dec-1992 #text_change 09-Jul-2004
C/Accession: A24856; A23849; A60323
R/Seino, S.; Welsh, M.; Bell, G.I.; Chan, S.J.; Steiner, D.F.
FEBS Lett. 203, 25-30, 1986
A/Title: Mutations in the guinea pig preproglucagon gene are restricted to a specific pr
A/Reference number: A24856; MUID:86248118; PMID:3553107
A/Accession: A24856
A/Molecule type: mRNA
A/Residues: 1-180 <SEI>
A/Cross-references: UNIPROT:P05110; UNIPARC:UPI000012B82C; DDBJ:D00014; GB:N00014; NID:
R/Huang, C.G.; Eng, J.; Pan, Y.C.B.; Holmes, J.D.; Yalow, R.S.
Diabetes 35, 508-512, 1986
A/Title: Guinea pig glucagon differs from other mammalian glucagons.
A/Reference number: A23849; MUID:86165412; PMID:3956884
A/Accession: A23849
A/Molecule type: protein
A/Residues: 53-81 <HUA>
A/Cross-references: UNIPARC:UPI00001734FD
R/Conlon, J.M.; Hansen, H.F.; Schwartz, T.W.
Regul. Pept. 11, 309-320, 1985
A/Title: Primary structure of glucagon and a partial sequence of oxyntomodulin (glucagon
A/Reference number: A60323; MUID:86017849; PMID:4048553
A/Accession: A60323
A/Molecule type: protein
A/Residues: 53-81 <CON>
A/Cross-references: UNIPARC:UPI00001734FD
A/Note: glucagon-37 was not completely sequenced
C/Superfamily: glucagon
C/Keywords: amidated carboxyl end; carbohydrate metabolism; duplication; hormone; pancre
F/1-20/Domain: signal sequence #status predicted <SIG>
F/21-50/Product: proglucagon #status predicted <PGC>
F/53-81/Region: glucagon-related peptide #status predicted
F/98-127/Product: glucagon-37 (oxyntomodulin) #status experimental <G37>
F/146-180/Product: glucagon-like peptide 1 #status predicted <GL1>
F/127/Modified site: amidated carboxyl end (Arg) (amide in mature form from following gl

Query Match          51.7%; Score 240.5; DB 1; Length 180;
Best Local Similarity 60.3%; Pred. No. 1.5e-17;
Matches 47; Conservative 7; Mismatches 9; Indels 15; Gaps 1;

OY 27 DKRHGEGFTSDVSYLEGQAKKEFIAMLVK-----GRHGEFTSDVSS 71
    |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 50 DKRHSGCTFTSDSKTLDSSRAQDFVQWLMNTKRNNNIAKRHDEFERBAEGFTSDVSS 109
    |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:

OY 72 YLEGQAKKEFIAMLVKGR 89
    |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 110 YLEGQAKKEFIAMLVKGR 127

RESULT 7
GCGP
glucagon precursor - pig (fragment)
N/Alternate names: oxyntomodulin
N/Contains: glucagon-related peptide; glucagon; glucagon-37 (oxyntomodulin); glucagon-
C/Species: Sus scrofa domestica (domestic pig)
C/Date: 17-Dec-1982 #sequence revision 31-Mar-1993 #text_change 20-Mar-1998
C/Accession: A01540; A60312; A91781; B32614; A28064
R/Thim, L.; Moody, A.J.
Regul. Pept. 2, 139-150, 1981

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A:Reference number: A36118; MWID:911S5952; PMID:2293024
A:Accession: C36118
A:Molecule type: mRNA
A:Residues: 1-180 <NIS>
A:Cross-references: UNIPROT:P22890; UNIPARC:UPI000012B839; GB:M57688; NID:g202467; PIDN:
C/Superfamily: glucagon
C/Keywords: amidated carboxyl end; carbohydrate metabolism; duplication; hormone; pancre
F:1-20/Domains: signal sequence #status predicted <SIG>
F:21-180/Product: proglucagon #status predicted <GCG>
F:21-50/Region: glycine-in-related peptide #status predicted
F:53-81/Product: glucagon #status predicted <GN>
F:98-127/Product: glucagon-like peptide 1 #status predicted <GL1>
F:146-178/Product: glucagon-like peptide 2 #status predicted <GL2>
F:127/Modified site: amidated carboxyl end (Arg) (amide in mature form from following gl
Query Match          49.6%; Score 230.5; DB 1; Length 180;
Best Local Similarity 59.0%; Pred. No. 1,6e-16;
Matches      46; Conservative    7; Mismatches     10; Indels   15; Gaps    1;

Oy       27 DKRHGEFTSPVSSYLEGOAKEFIAMLVK-----GRHGEGTSPDVS 71
Db        50 DKRHSQGFSTSDYSKFLDTRRADFDLMDLNTRYRNRNEIAKHDFEERHAEFTSDVS 109
               |||::|||
Oy         72 YLEGOAKFEIAMLVKGR  89
Db        110 YLEGOAKFEIAMLVKGR 127
                |||:|||

RESULT 9
GCCH
glucagon precursor - chicken
N/Contains: glucagon; glucagon-like peptide 1
C/Species: Gallus gallus (chicken)
C/Date: 31-Dec-1991 #sequence revision 31-Mar-1993 #text_change 09-Jul-2004
C/Accession: S09992; A92189; A60836; A01542
C/Haeegawa, S.; Terazono, K.; Nata, K.; Takada, T.; Yamamoto, H.; Okamoto, H.
FEBS Lett. 264, 117-120, 1990
A>Title: Nucleotide sequence determination of chicken glucagon precursor cDNA. Chicken p
A:Reference number: S09992; MWID:90Z49492; PMID:2338135
A:Accession: 809992
A:Molecule type: mRNA
A:Residues: 1-151 <HAS>
A:Cross-references: UNIPROT:P01277; UNIPARC:UPI000002AA99; EMBL:Y07539; NID:g63749; PIDN
R/Pollack, H.G.; Kimmel, J.R.
J. Biol. Chem. 250, 9377-9380, 1975
A>Title: Chicken glucagon. Isolation and amino acid sequence studies.
A:Reference number: A92189; MWID:76069271; PMID:1194290
A:Accession: A92189
A:Molecule type: protein
A:Residues: 55-83 <POL>
A:Cross-references: UNIPARC:UPI000012B830
R:Huang, J.; Eng, J.; Yalow, R.S.
Horm. Metab. Res. 19, 542-544, 1987
A>Title: Chicken glucagon: sequence and potency in receptor assay.
A:Reference number: A60836; MWID:88113418; PMID:2828209
A:Accession: A60836
A:Molecule type: protein
A:Residues: 55-83 <HTU>
A:Cross-references: UNIPARC:UPI000012B830
C/Superfamily: glucagon
C/Keywords: amidated carboxyl end; carbohydrate metabolism; duplication; hormone; pancr
F:1-22/Domains: signal sequence #status predicted <SIG>
F:23-151/Product: proglucagon #status predicted <PGC>
F:55-83/Product: glucagon #statue experimental <GCN>
F:118-147/Product: glucagon-like peptide 1 #status predicted <GL1>
F:147/Modified site: amidated carboxyl end (Arg) (amide in mature form from following g

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Db 5 SIYFIAGLLMTIVGSGWQNPLODTEKRSRPFKASQSEPLDESRLQNEVKHSQGTFTSDY 64
 QY 40 SSTLEGOAAKEFIAMLVK-----GRHGSTFT 66
 Db 65 SKYLDNRADDFVQWMLSTRNGQGGEDKENDKFPDQLSSNAISKHSEFERHAGTFT 124
 QY 67 SDVSYLEGOAAKEFIAMLVKGR 89
 Db 125 SDITSYLEGOAAKEFIAMLVNGR 147

RESULT 10

151301
 glucagon - chicken
 C/Species: Gallus gallus (chicken)
 C/Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
 C/Accession: 151301
 R/Irwin, D.M.; Mong, J.
 Mol. Endocrinol. 9, 267-277, 1995
 A/Title: Trout and chicken glucagon: alternative splicing generates mRNA transcripts
 A/Reference number: A55895; MUID:95295739; PMID:7776976
 A/Accession: 151301
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 1-206 <IRW>
 A/Cross-references: UNIPROT:P01277; UNIPARC:UPI000012B82E; GB:S78477; NID:G999386; PIDN:
 C/Superfamily: glucagon
 C/Keywords: duplication

Query Match 48.5%; Score 225.5; DB 2; Length 206;
 Best Local Similarity 37.1%; Pred. No. 6.1e-16;
 Matches 53; Conservative 15; Mismatches 20; Indels 55; Gaps 4;
 QY 2 NIPYIFLLSPVVG-----LEHTRRG-----SLD-----KHGEGTFTSDV 39
 Db 5 SIYFIAGLLMTIVGSGWQNPLODTEKRSRPFKASQSEPLDESRLQNEVKHSQGTFTSDY 64
 QY 40 SSTLEGOAAKEFIAMLVK-----GRHGSTFT 66
 Db 65 SKYLDNRADDFVQWMLSTRNGQGGEDKENDKFPDQLSSNAISKHSEFERHAGTFT 124
 QY 67 SDVSYLEGOAAKEFIAMLVKGR 89
 Db 125 SDITSYLEGOAAKEFIAMLVNGR 147

RESULT 11

151058
 glucagon 1 precursor - rainbow trout
 C/Species: Oncorhynchus mykiss (rainbow trout)
 C/Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
 C/Accession: 151058; 151299; 151056; 151037; 151036; 151300
 R/Irwin, D.M.; Mong, J.
 Mol. Endocrinol. 9, 267-277, 1995
 A/Title: Trout and chicken glucagon: alternative splicing generates mRNA transcripts
 A/Reference number: A55895; MUID:95295739; PMID:7776976
 A/Accession: 151058
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 1-178 <IRW>
 A/Cross-references: UNIPROT:Q91971; UNIPARC:UPI00000FB622; EMBL:U19917; NID:G736364; PIDN:
 A/Accession: 151299
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 52-53, 'X', 55-123 <IR2>
 A/Cross-references: UNIPARC:UPI0000176628; GB:S78473; NID:G999382; PIDN:AA34504.1; PID:
 A/Accession: 151056
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 58-123 <IR3>
 A/Cross-references: UNIPARC:UPI000017142D; EMBL:U19913; NID:G736360; PIDN:AAC59667.1; PI
 A/Accession: 151037
 A/Status: preliminary; translated from GB/EMBL/DBJ

A/Molecule type: DNA
 A/Residues: 'M', 114-144 <IR4>
 A/Cross-references: UNIPARC:UPI0000176629; EMBL:U19919; NID:G736374; PIDN:AAC60213.1; PI
 A/Accession: 151036
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: DNA
 A/Residues: 113-123 <IR5>
 A/Cross-references: UNIPARC:UPI0000171434; EMBL:U19918; NID:G736373; PIDN:AAC60212.1; PI
 C/Genetics:
 A/Introns: 123/2
 C/Superfamily: glucagon
 C/Keywords: duplication

Query Match 44.8%; Score 208.5; DB 2; Length 178;
 Best Local Similarity 42.6%; Pred. No. 2.9e-14;
 Matches 40; Conservative 19; Mismatches 18; Indels 17; Gaps 1;
 QY 13 FVQGLEHTHRGSLDRKHGEGTFTSDVSYLEGOAAKEFIAMLVK----- 58
 Db 73 FVQWMLNRSKRGAPSRHADGTFTSDVSTYLDQAKDFVWLKSGRARRESAERSNGP 132
 QY 59 ---RHGEGTFTSDVSYLEGOAAKEFIAMLVKGR 89
 Db 133 MSRRHVDGSPFTSVNKNVLDLSLAKKYLWVMTSK 166

RESULT 12

GCRFB
 glucagon precursor - bullfrog (fragments)
 N/Alternate names: oxyntomodulin
 N/Contamin: glucagon; glucagon-36 (oxyntomodulin); glucagon-like peptide 1; glucagon-11;
 C/Species: Rana catesbeiana (bullfrog)
 C/Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 20-Mar-1998
 C/Accession: B28091; D28091
 R/Pollack, H.G.; Hamilton, J.W.; Rouse, J.B.; Ebner, K.B.; Rawitch, A.B.
 J. Biol. Chem. 263, 9746-9751, 1988
 A/Title: Isolation of peptide hormones from the pancreas of the bullfrog (Rana catesbeiana)
 A/Reference number: A92730; MUID:88257102; PMID:3360236
 A/Accession: B28091
 A/Molecule type: protein
 A/Residues: 1-36 <PO2>
 A/Cross-references: UNIPARC:UPI0000173502
 A/Accession: C28091
 A/Molecule type: protein
 A/Residues: 37-68 <POL>
 A/Cross-references: UNIPARC:UPI0000173502
 A/Accession: D28091
 A/Molecule type: protein
 A/Residues: 69-101 <PO3>
 A/Cross-references: UNIPARC:UPI0000173502
 C/Superfamily: glucagon
 C/Keywords: carbohydrate metabolism; duplication; hormone; pancreas
 F:1-36/Product: glucagon-36 (oxyntomodulin) #status experimental <G36>
 F:1-29/Product: glucagon #status predicted <GNC>
 F:37-67/Product: glucagon-like peptide 1 #status experimental <GL1>
 F:69-101/Product: glucagon-like peptide 2 #status experimental <GL2>

Query Match 44.3%; Score 206; DB 1; Length 101;
 Best Local Similarity 52.6%; Pred. No. 2.9e-14;
 Matches 40; Conservative 17; Mismatches 15; Indels 4; Gaps 2;
 QY 13 FVQGLEHTHRGSLDRKHGEGTFTSDVSYLEGOAAKEFIAMLVKGR--HGEGTFTSDV 70
 Db 22 FVQWMLNRSKRGAPSRHADGTFTSDVSYLEGOAAKEFIAMLVKGRPRKADSGFTSDFN 79
 QY 71 SYLEGOAAKEFIAMLV 86
 Db 80 KALDIKAAQGFLEWII 95

RESULT 13

GCAF2
 glucagon 2 precursor - American goosefish

N:Contains: glucagon; glucagon-like peptide 1
C:Species: Lophius americanus (American goosefish)
C:Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 09-Jul-2004
C:Accession: A05150
R:lund, P.K.; Goodman, R.H.; Montminy, M.R.; Dee, P.C.; Habener, J.F.
J. Biol. Chem. 258, 3280-3284, 1983
A:title: Angiotensin I/II pre-proglucagon II. Nucleotide and corresponding amino acid sequence
A:Reference number: A05150; PMID:6338015
A:Accession: A05150
A:Molecule type: mRNA
A:Residues: 1-122 <LUD>
A:Cross-references: UNIPROT:P04092; UNIPARC:UPI000012B81E; GB:J00933; NID:J64021; PIDN:C:
C:Superfamily: Glucagon
C:Keywords: carbohydrate metabolism; duplication; hormone; pancreas
F:1-11/Domains: signal sequence #status predicted <SIG>
F:122-122/Product: proglucagon 2 #status predicted <PGC2>
F:52-80/Product: glucagon #status predicted <GCN>
F:89-119/Product: glucagon-like peptide 1 #status predicted <GLI>

Query Match	43.1%	Score 200.5;	DB 1;	Length 122;
Best Local Similarity	53.6%;	Pred. No. 1.3e-13;		
Matches 37;	Conservative 12;	Mismatches 13;	Indels 7;	Gaps 1;

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Qy      28 KRHGEFTTSDVSSYLEGQAAKEFIAMLVK-----RHGEFTTSDVSSYLEGQAAE 80
        || |||||: |||||: |||||: |||||: |||||: |||||: |||||: |||||:
Db      50 KRHSEGFSSNDYSKYLETRRADDFVQMLKNSKKNGLFRRHADGYTSDVSSYLDDQAAD 100

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QY	81	FLAWLVKGR	89
		::	
Db	110	FVSWLKAGR	118

RESULT 14

glucagon II precursor - rainbow trout
151057
C:Species: Oncorhynchus mykiss (rainbow trout)
C:Date: 13-Sep-1996 #sequence revision 13-Sep-1996 #text_change 09-Jul-2004
C:Accession: 151057; 151039; 151038
R:Irwin, D.M.; Wong, J. 1996. 1000

A>Title: Trout and chicken prolactin: alternative splicing generates mRNA transcripts
A:Reference number: A55895; MUID:95295739; PMID:7776976

A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA

A:Accession: 151039
A:Cross-references: UNIPROT:Q91189; UNIPARC:UP100000FE623; EMBL:U19914; NID:G736362; PMID:151039
A:References: 1-1/6 (LAW)

A:Residues: 113-144 <IR>
A:Molecule type: DNA
A:status: preliminary; clonated from gp/EMBU/UBU

A1:Accession: 151038
A2:Status: preliminary; translated from GB/EMBL/DBJ
A3:Cross-references: UNIPARC:UP10000011437; EMBL:U03916; NID:G36365; FIDN:MAC60210.1

A: Molecule type: DNA
A: Residues: 113-123 <R3>
A: Cross-references: UNIPROT: P170000171436. EMBL: J119915. NTD: 6736368. PTDN: AAC60209.1. PMID: 1119915.

C:Genetics: 123/2
A:introns: 123/2
C:Genetics: 123/2

C;Keywords: duplication

Query Match	43.1%;	Score 200.5;	DB 2;	length 178;
Best Local Similarity	40.4%;	Pred. No. 1.9e-13;		
Matches	38;	Conservative	20;	Mismatches 19;
			Indels	17;
			Gaps	1;

QY 13 FVQGLETHRRGSLDKRHGEFTTSDVSSYLEGQAAKEFIAMLVK----- 58

Db 73 FLHMTLNNSKRGAPSKRHADGTYTSDVTSTYLDQAAADFVSMKSGPARRESAEEMNGP 1322

59 ---RHGEGTFTSDVSSYLEGQAAKEFIAWLVKGR 89

Db 133 MSRRHVDGSFTSDVNKVLDSLAKLEYLLWMTSK 166

RESULT 15
GCIDC

GCIDC

glucagon precursor - channel catfish (fragments)
C;Species: Ictalurus punctatus (channel catfish)

C:\Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 09-Jul-2004

C;Accession: A05166; A05167
P:Andrews P C : Bonner P

K/ALDREWS, F.C.; ROHLER, F.
J. Biol. Chem. 260, 3910-3914, 1985

A; Title: Isolation and structures of glucagon and glucagon-like hormone

A/Reference number: A92514; MUID:85157536; PMID:3838546

A;Molecule type: pr
A;Accession: A05166

A;Residues: 1-29 <AND1>

A; Cross-references: UNIPROT: P04093; UNIPARC:UPI0000173508

A;Accession: A05167
A;Molecule type: protein

A;Residues: 30-63 <AND2>

A; Cross-references: UNIPARC:UPI0000173505

C;superfamily: glucagon
C;keywords: carbohydrate metabolism; duplication; hormone; pancreas

F;1-29/Product: glucagon #status experimental <GCN>

F;30-63/Product: glucagon-like peptide 1 #status experimental <GL1>

Query Match	Score	DB 1;	Length
40.5%	188.5;	DB 1;	Length 63;

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Best Local Similarity 36.7%; Pred. NO. 1.1e-12;
Matches 34; Conservative 12; Mismatches 13; Indels 1; Gaps 1;

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30 HGEFTSDVSSYLEGQAKEFIAMLVKGRHGEFTSDVSSYLEGQAKEFIAMLVKGR 89

Db 1 HSEGTFSNDYSKYLETBRAQDFVOWLMNS-HADGTYTSDVSSYLODQAKDFITWLKSGQ 59

Search completed: April 19, 2006, 12:10:00
Job time : 4.04545 secs

Job time : 4.04545 secs

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioacceleration Ltd.

OM protein - protein search, using sw model

Run on: April 19, 2006, 11:57:02 ; Search time 23.5142 Seconds
(without alignments)
2670.387 Million cell updates/sec

Title: US-10-775-180-449
Perfect score: 465
Sequence: 1 MNFYFLPLSLFVQGLHRT.....SSYLEGQAKKEFLIWLKGR 89

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UnlProt 05.80.*
1: unlprot_sprot.*
2: unlprot_crembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	251	54.0	220	2	Q8UWL9_9NEOB
2	249.5	53.7	180	1	GLUC_MESAU
3	247.5	53.2	176	1	GLUC_SHEEP
4	247.5	53.2	180	1	GLUC_BOVIN
5	247.5	52.6	180	1	GLUC_PIG
6	243.5	52.4	180	1	GLUC_CANPA
7	243.5	52.4	180	1	GLUC_MOUSE
8	243.5	52.4	180	2	Q53TP6_HUMAN
9	241.5	51.9	180	1	GLUC_HUMAN
10	241.5	51.9	180	1	GLUC_RAT
11	240.5	51.7	180	1	GLUC_CAVPO
12	238	51.2	149	2	Q6RYB2_BUFA
13	238	51.2	266	1	GLUCI_XENLA
14	233.5	50.2	266	1	Q6D124_XENTR
15	230.5	49.6	180	1	GLUCI_OCTDE
16	229.5	49.4	219	1	GLUC2_XENLA
17	229.5	49.4	219	2	Q5D082_XENLA
18	226	48.6	145	2	Q6RYB5_NEOPS
19	225.5	48.5	206	1	GLUC_CHICK
20	222	47.7	153	2	Q6RYB6_PRODO
21	215	46.2	103	1	GLUC_RANCA
22	215	46.2	124	2	Q6RYB1_9SAUR
23	214.5	46.1	204	1	GLUCI_HELISU
24	208.5	44.8	178	1	GLUCI_ONCMY
25	205.5	44.2	120	2	Q6RYB7_1CTPU
26	203	43.7	160	1	GLUCI_PETMA
27	201.5	43.3	173	1	Q6RYB9_1CTPU
28	200.5	43.1	122	1	GLUC2_LOPAM
29	200.5	43.1	178	1	GLUC2_ONCMY
30	200	43.0	121	2	Q5PR39_BRARE
31	200	43.0	123	2	Q6RYA9_9PERC

32	200	43.0	860	2	Q4RQJ4_TETNG	Q4RQJ4_tetradon n
33	198	42.6	121	1	GLUC_CARAU	P79695 careassus a
34	197	42.4	122	2	Q6RYB8_1CTPU	Q6RYB8_ictalurus p
35	193	41.5	124	2	Q4S308_TETNG	Q4S308_tetradon n
36	189.5	40.8	176	2	Q6RYB0_9PERC	Q6RYB0_sebastes ca
37	189.5	40.8	176	2	Q6RYC2_9PERC	Q6RYC2_sebastes ca
38	189	40.6	170	2	Q6RYB4_SQJAC	Q6RYB4_squalus aca
39	186	40.0	80	2	Q6IUP8_PHOSU	Q6IUP8_phodopus su
40	186	40.0	121	2	Q9DD66_BRARE	Q9DD66_brachydanto
41	185.5	39.9	71	1	GLUCI_PETMA	P81880 paraxacus m
42	183.5	39.5	71	1	GLUCI_1CTPU	P04093 ictalurus p
43	183	39.4	124	1	GLUCI_LOPAM	P01278 lophius p
44	179.5	38.6	121	2	Q6RYC1_9PERC	Q6RYC1_sebastes ca
45	179	38.5	78	1	GLUCI_LEPSP	P09566 lepisosteus

ALIGNMENTS

RESULT 1		ALIGNMENTS	
ID	Q8UWL9_9NEOB	PRT;	220 AA.
AC	Q8UWL9;		
DT	01-MAR-2002 (TrEMBLrel. 20, Created)		
DT	01-MAR-2002 (TrEMBLrel. 20, Last sequence update)		
DT	01-MAR-2004 (TrEMBLrel. 26, Last annotation update)		
DE	Proglucagon.		
OS	Hoplobatrachus rugulosus.		
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		
OC	Amphibia; Batrachia; Anura; Neobatrachia; Ranioidea; Ranidae;		
OC	Hoplobatrachus.		
OX	NCBI_TaxID=110072;		
RN	[1]		
RP	NUCLEOTIDE SEQUENCE.		
RA	Yeung C.-M., Chow B.K.C.;		
RT	"Identification of a proglucagon cDNA from Rana tigrina rugulosa that encodes two GLP-1s."		
RL	GetSeqComp-Embossrel. 124:0-0(2001).		
DR	EMBL; AF324209; AAL35758.1; -; mRNA.		
DR	HSSP; P01274; IGCN.		
DR	GO; GO:0005576; C:extracellular region; IEA.		
DR	GO; GO:0005179; F:hormone activity; IEA.		
DR	InterPro; IPR000532; Glucagon.		
DR	Pfam; PF00123; Hormone 2; 4.		
DR	PRINTS; PR00275; GLUCAGON.		
DR	SMART; SM00070; GLUCA; 4.		
DR	PROSITE; PS00260; GLUCAGON; 4.		
SO	SEQUENCE 220 AA; 25615 MW; C72D926E7F89E381 CRC64;		
Query Match 54.0%; Score 251; DB 2; Length 220;			
Best Local Similarity 54.9%; Pred. No. 2.9e-18;			
Matches 50; Conservative 14; Mismatches 13; Indels 14; Gaps 2;			
QY	13 FVQGLETHRRGSLDK-----RHGGRTFTSDVSSYLEGQAKKEFLIWLKGR-----		58
DB	74 FVQWLKMSKRSKSGSISKRNQFERHAGSTYINDVTFLEKAAKEFLDWLKGKPKQRLS 133		
QY	59 RHGGRTFTSDVSSYLEGQAKKEFLIWLKGR 89		
DB	134 RHAGGTFTSDVSSYLEKAKKEFLDWLKGK 164		
RESULT 2			
ID	GLUC_MESAU	STANDARD;	PRT; 180 AA.
AC	P01273;		
DT	21-JUN-1986 (Rel. 01, Created)		
DT	01-FEB-1996 (Rel. 33, Last sequence update)		
DT	13-SEP-2005 (Rel. 48, Last annotation update)		
DE	Glucagon precursor [Contains: Glucicetin; Glucicetin-related polypeptide (GRP); Oxyntomodulin (OXY) (OXM); Glucagon; Glucagon-like peptide 1 (GLP-1); Glucagon-like peptide 1(7-37) (GLP-1(7-37)); Glucagon-like peptide 1(7-36) (GLP-1(7-36)); Glucagon-like peptide 2 (GLP-2)]		

GN Name=GCC;
OS Mesocricetus auratus (Golden hamster).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Cricetidae; Cricetinae; Mesocricetus.
OX NCBI_TaxID=10036;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA MEDLINE=83167563; PubMed=6835407;
RT Bell G.I., Sauterre R.F., Mullenbach G.T.;
RT "Hamster preproglucagon contains the sequence of glucagon and two
RT related peptides.";
RL Nature 302:716-718(1983).
RN [2]
RP SEQUENCE REVISION TO 12-15.
RA Bell G.I.;
RN Submitted (JUN-1985) to the EMBL/GenBank/DBJ databases.
RN [3]
RP REVIEW.
RA MEDLINE=2442611; PubMed=12554744; DOI=10.1210/me.2002-0306;
RT Drucker D.U.;
RT "Glucagon-like peptides: regulators of cell proliferation,
RT differentiation, and apoptosis.";
RL Mol. Endocrinol. 17:161-171(2003).
RN [4]
RP REVIEW.
RA MEDLINE=22513095; PubMed=12626323; DOI=10.1152/ajpendo.00492.2002;
RT Jiang G., Zhang B.B.;
RT "Glucagon and regulation of glucose metabolism.";
RL Am. J. Physiol. 284:E671-E678(2003).
RN [5]
RP REVIEW.
RA PubMed=10322410;
RT Drucker D.U.;
RT "Glucagon-like peptide 2.";
RL Trends Endocrinol. Metab. 10:153-156(1999).
RN [6]
RP REVIEW.
RA MEDLINE=20073561; PubMed=10605628; DOI=10.1210/er.20.6.876;
RT Kieffer T.J., Habener J.F.;
RT "The glucagon-like peptides.";
RL Endocr. Rev. 20:876-913(1999).
CC -1- FUNCTION: Glucagon plays a key role in glucose metabolism and
CC homeostasis. Regulates blood glucose by increasing gluconeogenesis
CC and decreasing glycolysis. A counterregulatory hormone of insulin,
CC raises plasma glucose levels in response to insulin-induced
CC hypoglycemia (By similarity).
CC -1- FUNCTION: GLP-1 is a potent stimulator of glucose-dependent
CC insulin release. Play important roles on gastric motility and the
CC suppression of satiety and stimulation of glucose disposal in
CC peripheral tissues, independent of the actions of insulin. Have
CC growth-promoting activities on intestinal epithelium. May also
CC regulate the hypothalamic pituitary axis (HPA) via effects on LH,
CC TSH, CRH, oxytocin, and vasopressin secretion. Increases islet
CC mass through stimulation of islet neogenesis and pancreatic beta
CC cell proliferation (By similarity).
CC -1- FUNCTION: GLP-2 stimulates intestinal growth and up-regulates
CC villus height in the small intestine, concomitant with increased
CC crypt cell proliferation and decreased enterocyte apoptosis. The
CC gastrointestinal tract, from the stomach to the colon is the
CC principal target for GLP-2 action. Plays a key role in nutrient
CC homeostasis, enhancing nutrient assimilation through enhanced
CC gastrointestinal function, as well as increasing nutrient
CC disposal. Stimulates intestinal glucose transport and decreases
CC mucosal permeability (By similarity).
CC -1- FUNCTION: Oxyntomodulin significantly reduces food intake (By
CC similarity).
CC -1- FUNCTION: Glucagonin may modulate gastric acid secretion and
CC gastro-pyloro-duodenal activity (By similarity).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- INDUCTION: Glucagon release is stimulated by hypoglycemia and
CC inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and

CC GLP-2 are induced in response to nutrient ingestion (By
CC similarity).
CC -1- PFM: Proglucagon is posttranslationally processed in a tissue-
CC specific manner in pancreatic A cells and intestinal L cells. In
CC pancreatic A cells, the major bioactive hormone is glucagon
CC cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1
CC liberates GLP-1, GLP-2, glucagonin and oxyntomodulin. GLP-1 is
CC further N-terminally truncated by posttranslational processing in
CC the intestinal L cells resulting in GLP-1(7-37) GLP-1-(7-36)amide.
CC The C-terminal amidation is neither important for the metabolism
CC of GLP-1 nor for its effects on the endocrine pancreas (By
CC similarity).
CC -1- SIMILARITY: Belongs to the glucagon family.
CC -----
CC This Swiss-Prot entry is copyrighted. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC DR EMBL; J00059; AAA37074.1; -; mRNA.
CC DR HSSP; P01275; 1DOR.
CC DR InterPro; IPR000532; Glucagon.
CC DR Pfam; PF00123; Hormone_2; 3.
CC DR PRINTS; PR00275; GLUCAGON.
CC DR PROSITE; PS00260; GLUCAGON; 4.
CC KM Amidation; Cleavage on pair of basic residues; Glucagon family;
CC Hormone; Signal.
CC FT SIGNAL 1 20
CC FT PEPTIDE 21 89
CC FT PEPTIDE 21 50
CC FT PEPTIDE 53 89
CC FT PEPTIDE 53 81
CC FT PROPEP 84 89
CC FT PEPTIDE 92 128
CC FT PEPTIDE 98 128
CC FT PEPTIDE 98 127
CC FT PROPEP 131 145
CC FT PEPTIDE 146 178
CC FT SITE 52 53
CC FT SITE 83 84
CC FT SITE 91 92
CC FT SITE 97 98
CC FT SITE 130 131
CC FT SITE 145 146
CC FT MOD_RES 127 127
CC SQ SEQUENCE 180 AA; 20954 MW; 02791849D7AAD4B CRC64;
Query Match 53.7%; Score 249.5; DB 1; Length 180;
Best Local Similarity 44.0%; Pred. No. 3.3e-18;
Matches 55; Conservative 13; Mismatches 20; Indels 37; Gaps 3;
QY 2 NIFVYFLPLSTFVGQ-----LEHTHRG-----SLDRHGEGFTSPV 39
DB 3 NITYVAGFVVLVQSSWQHSLODTERKNSFPAISQDPLDPPDQINEDGRHSGGFTTSY 62
QY 40 SSTLEGQAKEFIAMLVK-----GRHGEGFTSDVSSYLEGQAKEFIAM 84
DB 63 SKYLDERRAQDVFVQMLMTKRRNNIAKXHDFFERHABGTFSDVSSYLEGQAKEFIAM 122
QY 85 LVKGR 89
DB 123 LVKGR 127
RESULT 3
GLUC_SHEEP STANDARD; PRT; 176 AA.
ID GLUC_SHEEP

AC 08MJ25;
 DT 25-OCT-2004 (Rel. 45, Last Created)
 DT 25-OCT-2004 (Rel. 45, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Glucagon precursor [Contains: Glucagon; Glucagon-related polypeptide
 (GRP); Oxyntomodulin (OXY) (OXM); Glucagon; Glucagon-like peptide 1
 (GLP-1); Glucagon-like peptide 1(7-37) (GLP-1(7-37)); Glucagon-like
 peptide 1(7-36) (GLP-1(7-36)); Glucagon-like peptide 2 (GLP-2)]
 DE (Fragment).
 DE Name=GGC;
 GN Ovis aries (Sheep).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Bovidae; Caprinae; Ovis.
 OC NCBI_TaxID=9940;
 RN 11
 RP NUCLEOTIDE SEQUENCE.
 RA Limesand S.W., Hay W.W., Jr.;
 RT "Characterization of the endocrine pancreas in an ovine placental
 insufficiency IUGR fetus."
 RL Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
 CC -1- FUNCTION: Glucagon plays a key role in glucose metabolism and
 homeostasis. Regulates blood glucose by increasing gluconeogenesis
 and decreasing glycolysis. A counterregulatory hormone of insulin,
 raises plasma glucose levels in response to insulin-induced
 hypoglycemia (By similarity).
 CC -1- FUNCTION: GLP-1 is a potent stimulator of glucose-dependent
 insulin release. Play important roles on gastric motility and the
 suppression of plasma glucagon levels. May be involved in the
 peripheral tissues, independent of the actions of insulin. Have
 growth-promoting activities on intestinal epithelium. May also
 regulate the hypothalamic pituitary axis (HPA) via effects on LH,
 TSH, CRH, oxytocin, and vasopressin (By similarity).
 CC -1- FUNCTION: GLP-2 stimulates intestinal growth and up-regulates
 villus height in the small intestine, concomitant with increased
 crypt cell proliferation and decreased enterocyte apoptosis. The
 gastrointestinal tract, from the stomach to the colon is the
 principal target for GLP-2 action. Plays a key role in nutrient
 homeostasis, enhancing nutrient assimilation through enhanced
 gastrointestinal function, as well as increasing nutrient
 disposal. Stimulates intestinal glucose transport and decreases
 mucosal permeability (By similarity).
 CC -1- FUNCTION: Oxyntomodulin significantly reduces food intake (By
 similarity).
 CC -1- FUNCTION: Glucagon may modulate gastric acid secretion and
 gastro-pyloro-duodenal activity.
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: Glucagon is secreted in the A cells of the
 islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glucagonin
 are secreted from enteroendocrine cells throughout the
 gastrointestinal tract. GLP1 and GLP2 are also secreted in
 selected neurons in the brain.
 CC -1- INDUCTION: Glucagon release is stimulated by hypoglycemia and
 inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and
 GLP-2 are induced in response to nutrient ingestion (By
 similarity).
 CC -1- PTM: Proglucagon is posttranslationally processed in a tissue-
 specific manner in pancreatic A cells and intestinal L cells. In
 pancreatic A cells, the major bioactive hormone is glucagon
 cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1
 liberates GLP-1, GLP-2, glucagonin and oxyntomodulin. GLP-1 is
 further N-terminally truncated by posttranslational processing in
 the intestinal L cells resulting in GLP-1(7-37) GLP-1(7-36)amide.
 CC The C-terminal amidation is neither important for the metabolism
 of GLP-1 nor for its effects on the endocrine pancreas (By
 similarity).
 CC MISCELLANEOUS: GLP-2 does not have cleavage on a pair of basic
 residues at C-terminus as in other mammals.
 CC -1- SIMILARITY: Belongs to the glucagon family.
 CC -----
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration

CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC DR EMBL; AF529185; AAM94409.1; -; mRNA.
 CC DR InterPro; IPR000532; Glucagon.
 CC DR Pfam; PF00123; Hormone 2; 3.
 CC DR PRINTS; PR00275; GLUCAGON.
 CC DR SMART; SM00070; GLUCA; 3.
 CC DR PROSITE; PS00260; GLUCAGON; 4.
 CC KW Annotation: Cleavage on pair of basic residues; Glucagon family;
 CC Hormone; Signal.
 CC FT SIGNAL 1 20
 CC FT PEPTIDE 21 89
 CC FT PEPTIDE 21 50
 CC FT PEPTIDE 53 89
 CC FT PEPTIDE 53 81
 CC FT PROPEP 84 89
 CC FT PEPTIDE 92 128
 CC FT PEPTIDE 98 128
 CC FT PEPTIDE 98 127
 CC FT PROPEP 131 145
 CC FT PEPTIDE 146 >176
 CC FT SITE 52 53
 CC FT SITE 83 84
 CC FT SITE 91 92
 CC FT SITE 97 98
 CC FT SITE 130 131
 CC FT SITE 145 146
 CC FT MOD_RES 127 127
 CC FT NON_TER 176 176
 CC SQ SEQUENCE 176 AA; 2036 MW; 13174039BDC2B3 CRC64;
 CC Query Match 53.2%; Score 247.5; DB 1; Length 176;
 CC Best Local Similarity 42.4%; Pred. No. 5.3e-18;
 CC Matches 53; Conservative 16; Mismatches 19; Indels 37; Gaps 3;
 CC
 CC QY 2 NIPYIFPLSPVQGS-----LEHTRRGSL-----DKRGEGFTSDV 39
 CC DB 3 SLVFAGLVWLAQSGSHQSHLQNTKSSSPAPQDPLDPPQISDKHSGFTSDV 62
 CC QY 40 SSYLEGQAAKEFIAMLVK-----GRHGFTSDVSSYLEGQAAKEFIAM 84
 CC DB 63 SKYLDSSRADDFVQWLMNTYRKNNKNNIAKRDEFEHAGFTSDVSSYLEGQAAKEFIAM 122
 CC QY 85 LVKGR 89
 CC DB 123 LVKGR 127
 CC
 CC RESULT 4
 CC ID GLUC_BOVIN STANDARD; PRT; 180 AA.
 CC AC P01272;
 CC DT 21-JUL-1986 (Rel. 01, Created)
 CC DT 13-AUG-1987 (Rel. 05, Last sequence update)
 CC DT 13-SEP-2005 (Rel. 48, Last annotation update)
 CC DE Glucagon precursor [Contains: Glucagon; Glucagon-related polypeptide
 (GRP); Oxyntomodulin (OXY) (OXM); Glucagon; Glucagon-like peptide 1
 (GLP-1); Glucagon-like peptide 1(7-37) (GLP-1(7-37)); Glucagon-like
 peptide 1(7-36) (GLP-1(7-36)); Glucagon-like peptide 2 (GLP-2)].
 CC DE Name=GGC;
 CC GN Bos taurus (Bovine).
 CC OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 CC OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 CC OC Pecora; Bovidae; Bovinae; Bos.
 CC OC NCBI_TaxID=9913;
 CC -----

[1] NUCLEOTIDE SEQUENCE.
RX MEDLINE=83293996; PubMed=65777439;
RA Lopez L.C., Frazier M.L., Su C.-J., Kumar A., Saunders G.F.;
RT "Mammalian pancreatic preproglucagon contains three glucagon-related
RL peptides.";
RL Proc. Natl. Acad. Sci. U.S.A. 80:5485-5489(1983).
RN [2]
RP PROTEIN SEQUENCE OF 53-81.
RX MEDLINE=71166445; PubMed=5102927;
RA Bromer W.W., Boucher M.E., Koffenberg J.E. Jr.;
RT "Amino acid sequence of bovine glucagon.";
RL J. Biol. Chem. 246:2822-2827(1971).
RN [3]
RP MEDLINE=22442611; PubMed=12554744; DOI=10.1210/me.2002-0306;
RX Drucker D.J.;
RT "Glucagon-like peptides: regulators of cell proliferation,
RL differentiation, and apoptosis.";
RL Mol. Endocrinol. 17:161-171(2003).
RN [4]
RP REVIEW.
RX MEDLINE=22513095; PubMed=12626323; DOI=10.1152/ajpendo.00492.2002;
RA Jiang G., Zhang B.B.;
RT "Glucagon and regulation of glucose metabolism.";
RL Am. J. Physiol. 284:E671-E678(2003).
RN [5]
RP REVIEW.
RX PubMed=10322410;
RA Drucker D.J.;
RT "Glucagon-like peptide 2.";
RL Trends Endocrinol. Metab. 10:153-156(1999).
RN [6]
RP REVIEW.
RX MEDLINE=20073561; PubMed=10605628; DOI=10.1210/er.20.6.876;
RA Kieffer T.J., Habener J.F.;
RT "The glucagon-like peptides.";
RL Endocr. Rev. 20:876-913(1999).
RN [7]
RP STRUCTURE BY NMR OF 53-81.
RX MEDLINE=71166445; PubMed=6631957;
RA Braun W., Wider G., Lee K.H., Wietrich K.;
RT "Conformation of glucagon in a lipid-water interface by 1H nuclear
RL magnetic resonance.";
RN J. Mol. Biol. 159:921-948(1983).
CC -1- FUNCTION: Glucagon plays a key role in glucose metabolism and
CC homeostasis. Regulates blood glucose by increasing gluconeogenesis
CC and decreasing glycolysis. A counterregulatory hormone of insulin,
CC raises plasma glucose levels in response to insulin-induced
CC hypoglycemia (By similarity).
CC -1- FUNCTION: GLP-1 is a potent stimulator of glucose-dependent
CC insulin release. Play important roles on gastric motility and the
CC suppression of plasma glucagon levels. May be involved in the
CC suppression of satiety and stimulation of glucose disposal in
CC peripheral tissues, independent of the actions of insulin. Have
CC growth-promoting activities on intestinal epithelium. May also
CC regulate the hypothalamic pituitary axis (HPA) via effects on LH,
CC TSH, CRH, oxytocin, and vasopressin secretion. Increases islet
CC mass through stimulation of islet neogenesis and pancreatic beta
CC cell proliferation (By similarity).
CC -1- FUNCTION: GLP-2 stimulates intestinal growth and up-regulates
CC villus height in the small intestine, concomitant with increased
CC crypt cell proliferation and decreased enterocyte apoptosis. The
CC gastrointestinal tract, from the stomach to the colon is the
CC principal target for GLP-2 action. Plays a key role in nutrient
CC homeostasis, enhancing nutrient assimilation through enhanced
CC gastrointestinal function, as well as increasing nutrient
CC disposal. Stimulates intestinal glucose transport and decreases
CC mucosal permeability (By similarity).
CC -1- FUNCTION: Oxyntomodulin significantly reduces food intake (By
CC similarity).
CC -1- FUNCTION: Glucantn may modulate gastric acid secretion and
CC gastro-pyloro-duodenal activity.

[illegible]

Db 63 SKYLSRBAQDFVQWLMNTKRNKNNIAKRBDEFERHAEFTSPVSSYLEGQAKERIAM 122
QY 85 LVKGR 89
Db 123 LVKGR 127

RESULT-5
GLUC_PIG STANDARD; PRT; 180 AA.
ID GLUC_PIG
AC P01274; Q864V8;
DT 21-JUL-1986 (Rel. 01, Created)
DT 29-MAR-2004 (Rel. 43, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Glucagon precursor [Contains: Glucicentin; Glucicentin-related polypeptide
(GRP); Oxyntomodulin (OXM); Glucagon; Glucagon-like peptide 1
(GLP-1); Glucagon-like peptide 1(7-37) (GLP-1(7-37)); Glucagon-like
peptide 1(7-36) (GLP-1(7-36)); Glucagon-like peptide 2 (GLP-2)].
GN Name-CCG;
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suidae;
OC Sus.
CX NCBI_TaxID=9623;
RN [1]
RP NUCLEOTIDE SEQUENCE. Small intestine;
RC TISSUE=Pancreas, and Small intestine;
RA Siggers R.H., Goldade B.G., Laarveld B., Van Kessel A.G.;
RT "Cloning of porcine proglucagon.";
RL Submitted (FEB-2003) to the EMBL/GenBank/DBJ databases.
[2]
RN PROTEIN SEQUENCE OF 21-89.
RX MEDLINE=81248172; PubMed=6894800; DOI=10.1016/0167-0115(81)90007-0;
RA Thim L., Moody A.J.;
RT "The primary structure of porcine glucicentin (proglucagon).";
RL Regul. Pept. 2:139-150(1981).
[3]
RN PROTEIN SEQUENCE OF 21-89.
RX MEDLINE=82221776; PubMed=7045633; DOI=10.1016/0196-9781(81)90007-3;
RA Thim L., Moody A.J.;
RT "The amino acid sequence of porcine glucicentin.";
RL Peptides 2 Suppl. 2:37-39(1981).
[4]
RN PROTEIN SEQUENCE OF 53-81.
RA Bromer W.W., Sinn L.G., Behrens O.K.;
RT "The amino acid sequence of glucagon. V. Location of amide groups,
acid degradation studies and summary of sequential evidence.";
RL J. Am. Chem. Soc. 79:2807-2810(1957).
[5]
RN PROTEIN SEQUENCE OF 98-127.
RX MEDLINE=89327238; PubMed=2753890;
RA Oreskov C., Bersani M., Johnsen A.H., Hoejrup P., Holst J.J.;
RT "Complete sequences of glucagon-like peptide-1 from human and pig
small intestine.";
RL J. Biol. Chem. 264:12826-12829(1989).
[6]
RN PROTEIN SEQUENCE OF 131-178.
RX MEDLINE=88243712; PubMed=3379036;
RA Buhl T., Thim L., Kofod H., Oreskov C., Harling H., Holst J.J.;
RT "Naturally occurring products of proglucagon 111-160 in the porcine
small intestine.";
RL J. Biol. Chem. 263:8621-8624(1988).
[7]
RN TISSUE SPECIFICITY.
RX MEDLINE=87004290; PubMed=3530719;
RA Oreskov C., Holst J.J., Knudsen S., Baldissera F.G., Poulsen S.S.,
Nielsen O.V.;
RT "Glucagon-like peptides GLP-1 and GLP-2, predicted products of the
glucagon gene, are secreted separately from pig small intestine but
not pancreas.";
RL Endocrinology 119:1467-1475(1986).
[8]
RN REVIEW.

RX MEDLINE=22442611; PubMed=12554744; DOI=10.1210/me.2002-0306;
RA Drucker D.J.;
RT "Glucagon-like peptides: regulators of cell proliferation,
RT differentiation, and apoptosis.";
RL Mol. Endocrinol. 17:161-171(2003).
[9]
RN REVIEW.
RX MEDLINE=22513095; PubMed=12626323; DOI=10.1152/ajpendo.00492.2002;
RA Jiang G., Zhang B.B.;
RT "Glucagon and regulation of glucose metabolism.";
RL Am. J. Physiol. 284:E671-E678(2003).
[10]
RN REVIEW.
RX PubMed=10322410;
RA Drucker D.J.;
RT "Glucagon-like peptide 2.";
RL Trends Endocrinol. Metab. 10:153-156(1999).
[11]
RN REVIEW.
RX MEDLINE=20073564; PubMed=10605628; DOI=10.1210/er.20.6.876;
RA Kieffer T.J., Habener J.F.;
RT "The glucagon-like peptides.";
RL Endocr. Rev. 20:876-913(1999).
[12]
RN X-RAY CRYSTALLOGRAPHY (3.0 ANGSTROMS) OF 53-81.
RX MEDLINE=76051297; PubMed=171582;
RA Szeaki K., Dockerill S., Adamiak D.A., Tickle I.J., Blundell T.L.;
RT "X-ray analysis of glucagon and its relationship to receptor
RT binding.";
RL Nature 257:751-757(1975).
[13]
RN FUNCTION: Glucagon plays a key role in glucose metabolism and
CC homeostasis. Regulates blood glucose by increasing gluconeogenesis
CC and decreasing glycolysis. A counterregulatory hormone of insulin,
CC raises plasma glucose levels in response to insulin-induced
CC hypoglycemia (by similarity).
CC FUNCTION: GLP-1 is a potent stimulator of glucose-dependent
CC insulin release. Play important roles on gastric motility and the
CC suppression of plasma glucagon levels. May be involved in the
CC peripheral tissues, independent of the actions of insulin. Have
CC growth-promoting activities on intestinal epithelium. May also
CC regulate the hypothalamic pituitary axis (HPA) via effects on LH,
CC TSH, CRH, oxytocin, and vasopressin (by similarity).
CC FUNCTION: GLP-2 stimulates intestinal growth and up-regulates
CC villus height in the small intestine, concomitant with increased
CC crypt cell proliferation and decreased enterocyte apoptosis. The
CC gastrointestinal tract, from the stomach to the colon is the
CC principal target for GLP-2 action. Plays a key role in nutrient
CC homeostasis, enhancing nutrient assimilation through enhanced
CC gastrointestinal function, as well as increasing nutrient
CC disposal. Stimulates intestinal glucose transport and decreases
CC mucosal permeability (by similarity).
CC FUNCTION: Oxyntomodulin significantly reduces food intake (by
CC similarity).
CC FUNCTION: Glucicentin may modulate gastric acid secretion and
CC gastro-pyloro-duodenal activity.
CC SUBCELLULAR LOCATION: Secreted.
CC TISSUE SPECIFICITY: Glucagon is secreted in the A cells of the
CC islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glucicentin
CC are secreted from enteroendocrine cells throughout the
CC gastrointestinal tract. GLP1 and GLP2 are also secreted in
CC selected neurons in the brain.
CC INDUCTION: Glucagon release is stimulated by hypoglycemia and
CC inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and
CC GLP-2 are induced in response to nutrient ingestion (by
CC similarity).
CC PTM: Proglucagon is posttranslationally processed in a tissue-
CC specific manner in pancreatic A cells and intestinal L cells. In
CC pancreatic A cells, the major bioactive hormone is glucagon
CC cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1
CC liberates GLP-1, GLP-2, glucicentin and oxyntomodulin. GLP-1 is
CC further N-terminally truncated by posttranslational processing in
CC the intestinal L cells resulting in GLP-1(7-37) GLP-1-(7-36)amide.

CC The C-terminal amidation is neither important for the metabolism
 CC of GLP-1 nor for its effects on the endocrine pancreas (By
 CC similarity).
 CC -1- MISCELLANEOUS: GLP-2 does not have cleavage on a pair of basic
 CC residues at C-terminus as in other mammals.
 CC -1- SIMILARITY: Belongs to the glucagon family.
 CC -----
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation-
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC EMBL: AY242124; AAC88211.1; -; mRNA.
 CC PDB: 1GCN; X-ray; @=53-81.
 CC InterPro: IPR000532; Glucagon.
 CC Pfam: PF00123; Hormone_2; 3.
 CC PRINTS: PR00275; GLUCAGON.
 CC SMART: SM00070; GLUCA; 3.
 CC PROSITE: PS00260; GLUCAGON; 4.
 CC 3D-structure: Amidation; Cleavage on pair of basic residues;
 CC Direct protein sequencing; Glucagon family; Hormone; Signal.
 CC -----
 FT SIGNAL 1 20
 FT PEPIDE 21 50
 FT PEPIDE 53 89
 FT PEPIDE 53 89
 FT PEPIDE 84 89
 FT PEPIDE 92 128
 FT PEPIDE 98 127
 FT PEPIDE 131 145
 FT PEPIDE 146 180
 FT SITE 52 53
 FT SITE 83 84
 FT SITE 91 92
 FT SITE 97 98
 FT SITE 130 131
 FT SITE 145 146
 FT MOD_RES 127 127
 FT CONFLICT 143 143
 FT SEQUENCE 180 AA; 21029 MW; 362997AB72197EB6 CRC64;
 SQ
 Query Match 52.6%; Score 244.5; DB 1; Length 180;
 Best Local Similarity 42.7%; Pred. No. 1.1e-17;
 Matches 53; Conservative 15; Mismatches 19; Indels 37; Gaps 3;
 QY 3 IYIYPLFLSFTVG-----LEHTHRG-----SLDKRHGEFTSDVS 40
 DB 4 IYVAGLFWLVGSMORSLONTBKSRSFPAPQOTPLDPPDPTEDKRSQGTFTSDVS 63
 QY 41 SYLEGOAAKEFIAMLVK-----GRHGEGFTSDVSYLEGOAAKEFIAML 85
 DB 64 KYLDSRRADQFVQWLMWTKKNKNNAKRAHDEFRHAGFTTSVSYLEGOAAKEFIAML 123
 QY 86 VKGR 89
 DB 124 VKGR 127
 RESULT 6
 ID GLUC_CANFA STANDARD; PRT; 180 AA.
 AC P29794; Q95LG0;
 DT 01-APR-1993 (Rel. 25, Created)
 DT 29-MAR-2004 (Rel. 43, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Glucagon precursor [Contains: Glucocortic; Glucocortic-related polypeptide
 DE (GRP); Oxytocinmodulin (OXY) (OXM); Glucagon; Glucagon-like peptide 1
 DE (GRP-1); Glucagon-like peptide 1 (7-37) (GRP-1(7-37)); Glucagon-like

DE peptide 1 (7-36) (GRP-1(7-36)); Glucagon-like peptide 2 (GRP-2)].
 GN Name=GCg;
 OS Canis familiaris (Dog).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
 OC Canis.
 OK NCBI_TaxID=9615;
 RN (1)
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Pancreas, and Stomach;
 RX PubMed=11916259;
 RA Irwin D.M.;
 RT cDNA cloning of proglucagon from the stomach and pancreas of the
 RT dog.";
 RL DNA Seq. 12:253-260(2001).
 RN (2)
 RP PROTEIN SEQUENCE OF 21-89.
 RC TISSUE=ileum;
 RX MEDLINE=89185675; PubMed=3238052; DOI=10.1016/0167-0115(88)90230-3;
 RA Shimomura Y., Eng J., Yalow R.S.;
 RT "Immunoreactive glucagons purified from dog pancreas, stomach and
 RT ileum.";
 RL Regul. Pept. 23:299-308(1988).
 RN (3)
 RP PROCESSING BY PCSK1 AND PCSK2.
 RX PubMed=1049540; DOI=10.1210/en.140.10.4800;
 RA Damholt A.B., Buchan A.M., Holst J.J., Kofoed H.;
 RT "Proglucagon processing profile in canine L cells expressing
 RT endogenous prohormone convertase 1/3 and prohormone convertase 2.";
 RL Endocrinology 140:4800-4808(1999).
 RN (4)
 RP REVIEW.
 RX PubMed=12554744; DOI=10.1210/me.2002-0306;
 RA Drucker D.J.;
 RT "Glucagon-like peptides: regulators of cell proliferation,
 RT differentiation, and apoptosis.";
 RL Mol. Endocrinol. 17:161-171(2003).
 RN (5)
 RP REVIEW.
 RX PubMed=12626323; DOI=10.1152/ajpendo.00492.2002;
 RA Jiang G., Zhang B.B.;
 RT "Glucagon and regulation of glucose metabolism.";
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 RP REVIEW.
 RX PubMed=10322410;
 RA Drucker D.J.;
 RT "Glucagon-like peptide 2.";
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 RN (7)
 RP REVIEW.
 RX PubMed=10605628; DOI=10.1210/er.20.6.876;
 RA Kieffer T.J., Habener J.F.;
 RT "The glucagon-like peptides.";
 RL Endocr. Rev. 20:876-913(1999).
 CC -1- FUNCTION: Glucagon plays a key role in glucose metabolism and
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 CC and decreasing glycocolysis. A counterregulatory hormone of insulin,
 CC raises plasma glucose levels in response to insulin-induced
 CC hypoglycemia (By similarity).
 CC -1- FUNCTION: GLP-1 is a potent stimulator of glucose-dependent
 CC insulin release. Play important roles on gastric motility and the
 CC suppression of satiety and stimulation of glucose disposal in
 CC peripheral tissues, independent of the actions of insulin. Have
 CC growth-promoting activities on intestinal epithelium. May also
 CC regulate the hypothalamic pituitary axis (HPA) via effects on LH,
 CC TSH, CRH, oxytocin, and vasopressin secretion. Increases islet
 CC mass through stimulation of islet neogenesis and pancreatic beta
 CC cell proliferation (By similarity).
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 CC villus height in the small intestine, concomitant with increased
 CC crypt cell proliferation and decreased enterocyte apoptosis. The

CC gastrointestinal tract, from the stomach to the colon is the
 CC principal target for GLP-2 action. Plays a key role in nutrient
 CC homeostasis, enhancing nutrient assimilation through enhanced
 CC gastrointestinal function, as well as increasing nutrient
 CC disposal. Stimulates intestinal glucose transport and decreases
 CC mucosal permeability (By similarity).
 CC - FUNCTION: Oxyntomodulin significantly reduces food intake (By
 CC similarity).
 CC - FUNCTION: Glucagon may modulate gastric acid secretion and
 CC gastro-pyloro-duodenal activity.
 CC - SUBCELLULAR LOCATION: Secreted.
 CC - TISSUE SPECIFICITY: Glucagon is secreted in the A cells of the
 CC islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glucagon
 CC are secreted from enteroendocrine cells throughout the
 CC gastrointestinal tract. GLP1 and GLP2 are also secreted in
 CC selected neurons in the brain.
 CC - INDUCTION: Glucagon release is stimulated by hypoglycemia and
 CC inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and
 CC GLP-2 are induced in response to nutrient ingestion (By
 CC similarity).
 CC - PFM: Proglucagon is posttranslationally processed in a tissue-
 CC specific manner in pancreatic A cells and intestinal L cells. In
 CC pancreatic A cells, the major bioactive hormone is glucagon
 CC cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1
 CC liberates GLP-1, GLP-2, glucagon and oxyntomodulin. GLP-1 is
 CC further N-terminally truncated by posttranslational processing in
 CC the intestinal L cells resulting in GLP-1(7-37) GLP-1(7-36) amide.
 CC The C-terminal amidation is neither important for the metabolism
 CC of GLP-1 nor for its effects on the endocrine pancreas (By
 CC similarity).
 CC - SIMILARITY: Belongs to the glucagon family.
 CC -----
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC EMBL; AF308439; ALU09425.1; -, mRNA.
 CC PIR; A60318; GCDG69.
 CC HSSP; P01274; 1GDN.
 CC DR Ensembl; ENSGAPG0000010414; Canis familiaris.
 CC DR InterPro; IPR000532; Glucagon.
 CC DR Pfam; PF00123; Hormone_2; 3.
 CC DR PRINTS; PR00275; GLUCAGON.
 CC DR SMART; SM00070; GLUCA; 3.
 CC DR PROSITE; PS00260; GLUCAGON; 4.
 CC AMBITION: Cleavage on pair of basic residues;
 CC Direct protein sequencing; Glucagon family; Hormone; Signal.
 CC FT SIGNAL 1 20
 CC FT PEPTIDE 21 50
 CC FT PEPTIDE 21 50
 CC FT PEPTIDE 53 89
 CC FT PROPEP 84 89
 CC FT PEPTIDE 92 128
 CC FT PEPTIDE 98 128
 CC FT PEPTIDE 98 127
 CC FT PROPEP 131 145
 CC FT PEPTIDE 146 178
 CC FT SITE 52 53
 CC FT SITE 83 84
 CC FT SITE 91 92
 CC FT SITE 97 98
 CC FT SITE 130 131
 CC FT SITE 145 146
 CC MOD_RES 127 127
 CC SEQUENCE 180 AA; 2115 MW; 80F66941AFC324PD CRC64;
 CC Query Match Score 243.5; DB 1; Length 180;
 CC Best Local Similarity 42.4%; Pred. NO. 1.4e-17;

Matches 53; Conservative 15; Mismatches 20; Indels 37; Gaps 3;
 QY 2 NIFYIFLPLSLVQG-----LEHTHRG-----SLDRHSGFTSDV 39
 DB 3 STYFVGLFVMTLVQSWORSLOTEKRSFSPAPQTEPLNDQNMEDGRHOGFTSDY 62
 QY 40 SSYLEQQAKEFLVWLK-----GRHGECTSDVSSYLEQQAKEFLW 84
 DB 63 SKTLDSRRADQDFQWMLNTRKNQNNIAKRHDEPERIAEGTFTSDVSSYLEQQAKEFLW 122
 QY 85 LVKGR 89
 DB 123 LVKGR 127
 RESULT 7
 ID GLUC_MOUSE STANDARD; PRT; 180 AA.
 AC P55095;
 DT 01-OCT-1996 (Rel. 34, Created)
 DT 01-OCT-1996 (Rel. 34, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Glucagon precursor (Contains: Glucagon; Glucagon-related polypeptide
 DE (GRP); Oxyntomodulin (OXY) (OXM); Glucagon; Glucagon-like peptide 1
 DE (GLP-1); Glucagon-like peptide 1(7-37) (GLP-1(7-37)); Glucagon-like
 DE peptide 1(7-36) (GLP-1(7-36)); Glucagon-like peptide 2 (GLP-2)).
 OS Name=Cgcl.
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP NCLEOTIDE SEQUENCE.
 RC TISSUE=Pancreatic islets;
 RX MEDLINE=95247722; PubMed=7730317; DOI=10.1074/jbc.270.17.10136;
 RA Rothenberg M.E., Ellertson C.D., Klein K., Zhou Y., Linberg I.,
 RA McDonald J.K., Macklin R.B., Noe B.D.;
 RT "Processing of mouse proglucagon by recombinant prohormone convertase
 RT 1 and immunopurified prohormone convertase 2 in vitro.";
 RL J. Biol. Chem. 270:10136-10146 (1995).
 RN [2]
 RP NCLEOTIDE SEQUENCE.
 RA Shamaedin R., Knepel W.;
 RT "Mouse glucagon full length cDNA.";
 RL Submitted (JUN-2000) to the EMBL/GenBank/DBJ databases.
 RN [3]
 RP NCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC STRAIN=C57BL/6J; TISSUE=Pancreas;
 RX MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
 RA Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,
 RA Nikaido I., Osato N., Saito R., Suzuki H., Yamana I., Kiyosawa H.,
 RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schnobach C., Gotohori T.,
 RA Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
 RA Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
 RA Blake J.A., Bradt D., Brusic V., Ciothia C., Corbani L.E., Cousins S.,
 RA Dalia E., Dragani T.A., Fletcher C.F., Forrest A., Fraser K.S.,
 RA Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
 RA Grimmond S., Gustlich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
 RA Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
 RA Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
 RA Maglott D.R., Malais L., Marchionni L., McKenzie L., Miki H.,
 RA Nagashima T., Numata K., Okido T., Pavan W.J., Pereira G., Pesole G.,
 RA Petrovsky N., Pillai R., Ponting J.U., Qi D., Ramachandran S.,
 RA Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
 RA Savelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
 RA Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
 RA Verardo R., Wagner L., Wehstedt C., Wang Y., Watanabe Y., Wells C.,
 RA Wilming L.G., Wyszynski-Boris A., Yanagisawa M., Yang I., Yang L.,
 RA Yuan Z., Zavalan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
 RA Hirozane-Kishikawa T., Kono H., Nakamura M., Sakazume N., Sato K.,
 RA Shiraki T., Waki K., Kawai T., Aizawa K., Arikawa T., Fukuda S.,
 RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,

RA Miyazaki A., Sakai K., Sasaki D., Shibata K., Shingawa A.,
 RA Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
 RA Birney E., Hayashizaki Y.;
 RT "Analysis of the mouse transcriptome based on functional annotation of
 RT 60,770 full-length cDNAs.";
 RL Nature 420:563-573(2002).
 RN (4)
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC STRAIN=FWB/N; TISSUE=Colon;
 RC MEDLINE=22368257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Straube R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shennan C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang Y., Hsieh F.,
 RA Diatchenko L., Marusik K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M.J., Soares M.B., Bonaldi M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Uedlin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loggellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Vallalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Pahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakeley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butlerfield Y.S.N., Krzyzanski M.I., Skalska U., Smalins D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN (5)
 RP FUNCTION OF GLP-1 AND GLP-1(7-36) AMIDE.
 RX Fiedolf T., Botcher G., Sundler F., Ahren B.;
 RT "GLP-1 and GLP-1(7-36) amide: influences on basal and stimulated
 RT insulin and glucagon secretion in the mouse.";
 RL Pancreas 6:208-215(1991).
 RN (6)
 RP PROCESSING BY PCSK1.
 RX PubMed=9407057; DOI=10.1074/jbc.272.52.32810;
 RA Rouille Y., Kantegawa S., Irminger J.C., Halban P.A.;
 RT "Role of the prohormone convertase PC3 in the processing of
 RT proglucagon to glucagon-like peptide 1.";
 RL J. Biol. Chem. 272:32810-32816(1997).
 RN (7)
 RP PROCESSING BY PCSK2.
 RX PubMed=11356850; DOI=10.1074/jbc.M103362200;
 RA Furuta M., Zhou A., Webb G., Carroll R., Ravezzola M., Orci L.,
 RA Steiner D.F.;
 RT "Severe defect in proglucagon processing in islet A-cells of
 RT prohormone convertase 2 null mice.";
 RL J. Biol. Chem. 276:27197-27202(2001).
 RN (8)
 RP REVIEW.
 RX PubMed=12554744; DOI=10.1210/me.2002-0306;
 RA Drucker D.J.;
 RT "Glucagon-like peptides: regulators of cell proliferation,
 RT differentiation, and apoptosis.";
 RL Mol. Endocrinol. 17:161-171(2003).
 RN (9)
 RP REVIEW.
 RX PubMed=12626323; DOI=10.1152/ajpendo.00492.2002;
 RA Jiang G., Zhang B.B.;
 RT "Glucagon and regulation of glucose metabolism.";
 RL Am. J. Physiol. 284:E671-E678(2003).
 RN (10)
 RP REVIEW.
 RX PubMed=10322410;
 RA Drucker D.J.;
 RT "Glucagon-like peptide 2.";
 RL Trends Endocrinol. Metab. 10:153-156(1999).
 RN (11)
 RP REVIEW.

RX PubMed=10605628; DOI=10.1210/er.20.6.876;
 RA Kieffer T.J., Habener J.F.;
 RT "The glucagon-like peptide.";
 RL Endocr. Rev. 20:876-913(1999).
 CC -1- FUNCTION: Glucagon plays a key role in glucose metabolism and
 CC homeostasis. Regulates blood glucose by increasing glucogenesis
 CC and decreasing glycolysis. A counterregulatory hormone of insulin,
 CC raises plasma glucose levels in response to insulin-induced
 CC hypoglycemia (By similarity).
 CC -1- FUNCTION: GLP-1 is a potent stimulator of glucose-dependent
 CC insulin release. Play important roles on gastric motility and the
 CC suppression of satiety and stimulation of glucose disposal in
 CC peripheral tissues, independent of the actions of insulin. Have
 CC growth-promoting activities on intestinal epithelium. May also
 CC regulate the hypothalamic pituitary axis (HPA) via effects on LH,
 CC TSH, CRH, oxytocin, and vasopressin secretion. Increases islet
 CC mass through stimulation of islet neogenesis and pancreatic beta
 CC cell proliferation (By similarity).
 CC -1- FUNCTION: GLP-2 stimulates intestinal growth and up-regulates
 CC villus height in the small intestine, concomitant with increased
 CC crypt cell proliferation and decreased enterocyte apoptosis. The
 CC gastrointestinal tract, from the stomach to the colon is the
 CC principal target for GLP-2 action. Plays a key role in nutrient
 CC homeostasis, enhancing nutrient assimilation through enhanced
 CC gastrointestinal function, as well as increasing nutrient
 CC disposal. Stimulates intestinal glucose transport and decreases
 CC mucosal permeability (By similarity).
 CC -1- FUNCTION: Oxyntomodulin significantly reduces food intake (By
 CC similarity).
 CC -1- FUNCTION: Glucagonin may modulate gastric acid secretion and
 CC gastro-pyloro-duodenal activity.
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: Glucagon is secreted in the A cells of the
 CC islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glucagonin
 CC are secreted from enteroendocrine cells throughout the
 CC gastrointestinal tract. GLP1 and GLP2 are also secreted in
 CC selected neurons in the brain.
 CC -1- INDUCTION: Glucagon release is stimulated by hypoglycemia and
 CC inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and
 CC GLP-2 are induced in response to nutrient ingestion (By
 CC similarity).
 CC -1- PTM: Proglucagon is posttranslationally processed in a tissue-
 CC specific manner in pancreatic A cells and intestinal L cells. In
 CC pancreatic A cells, the major bioactive hormone is glucagon
 CC cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1
 CC liberates GLP-1, GLP-2, glucagonin and oxyntomodulin. GLP-1 is
 CC further N-terminally truncated by posttranslational processing in
 CC the intestinal L cells resulting in GLP-1(7-37) GLP-1(7-36)amide.
 CC The C-terminal amidation is neither important for the metabolism
 CC of GLP-1 nor for its effects on the endocrine pancreas (By
 CC similarity).
 CC -1- SIMILARITY: Belongs to the glucagon family.
 CC
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation-
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC
 CC EMBL, Z46845; CAA86902.1; -; mRNA.
 CC EMBL, AF276754; AAK96898.1; -; mRNA.
 CC EMBL, AK007911; BAB25344.1; -; mRNA.
 CC EMBL, BC012975; AAH12975.1; -; mRNA.
 CC PIR: A57294; A57294.
 CC HSSP: P01275; 1D0R.
 CC Ensembl: ENSMUSG0000000394; Mus musculus.
 CC MGI: MGI:95674; Gc9.
 CC GO: GO:0005615; C:extracellular space; TAS.
 CC InterPro: IPR000532; Glucagon.
 CC Pfam: PF00123; Hormone_2; 3.

Query Match 52.4%; Score 243.5; DB 1; Length 180;

Best Local Similarity 43.5%; Pred. No. 1.4e-17;
Matches 54; Conservative 13; Mismatches 20; Indels 37; Gaps 3;

QY 3 IPIPIFLFLSFVVOG-----LEHTRRG-----SLDKRGEGFTSDVS 40
DE 4 IYFVAGLILMLVQSGMHALQDTEENRSPASQTEAHEDPDENEDKRRSGGFTSDVS 63
DB 41 SYIEGQAKKEFIAMLVK-----GRHGEGFTSDVS SYIEGQAKKEFIAMLV 85
OC 64 KYLDSRRADQDFVQWLMNTKRNNNIARHDEPFERHAGFTSDVS SYIEGQAKKEFIAMLV 123
OY 86 VKGR 89
DB 124 VKGR 127

RESULT 8
ID 053TPE6 HUMAN PRELIMINARY; PRT; 180 AA.

AC 053TPE6; 13-SEP-2005 (Tremblrel. 31, Created)
DT 13-SEP-2005 (Tremblrel. 31, Last sequence update)
DT 13-SEP-2005 (Tremblrel. 31, Last annotation update)
DE Hypothetical protein GCG.
GN Name=CGC;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominoidea;
OC Homo.
OX NCBI_TaxID=9606;

RN 11 Nucleotide Sequence.
RA Cotton M., Maupin R., Hawkins M., Harkins R.;
RT "The sequence of Homo sapiens BAC clone Rpl1-576116."
RP Submitted (JUN-1999) to the EMBL/GenBank/DBJ databases.
RN 12 Nucleotide Sequence.
RA Waterston R.H.;
RP Submitted (OCT-1999) to the EMBL/GenBank/DBJ databases.
RN 13 Nucleotide Sequence.
RA Waterston R.;
RP Submitted (OCT-2000) to the EMBL/GenBank/DBJ databases.
RN 14 Nucleotide Sequence.
RA Wilson R.K.;
RP Submitted (APR-2005) to the EMBL/GenBank/DBJ databases.
DR EMBL: AC007750; AAY24204.1; -; Genomic DNA.
KM Hypothetical protein.
SQ SEQUENCE 180 AA; 20909 MW; 7A99BEC629B2862C CRC64;

Query Match 52.4%; Score 243.5; DB 2; Length 180;
Best Local Similarity 42.4%; Pred. No. 1.4e-17;
Matches 53; Conservative 15; Mismatches 20; Indels 37; Gaps 3;

QY 2 NIPPIFLFLSFVVOG-----LEHTRRG-----SLDKRGEGFTSDVS 39
DE 3 SIYFVAGLILMLVQSGMHALQDTEENRSPASQTEAHEDPDENEDKRRSGGFTSDVS 62
DB 40 SYIEGQAKKEFIAMLVK-----GRHGEGFTSDVS SYIEGQAKKEFIAMLV 84
OY 63 SKYLDSSRRADQDFVQWLMNTKRNNNIARHDEPFERHAGFTSDVS SYIEGQAKKEFIAMLV 122
DB 85 VKGR 89
DB 123 VKGR 127

RESULT 9
ID GLUC_HUMAN STANDARD; PRT; 180 AA.
AC P01275;
DT 21-JUL-1986 (Rel. 01, Created)

DT 29-MAR-2004 (Rel. 43, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Glucagon precursor [Contains: Glucantoin; Glucantoin-related polypeptide
DE (GRP); Oxyntomodulin (OXY) (OXM); Glucagon; Glucagon-like peptide 1
DE (GLP-1); Glucagon-like peptide 1(7-37) (GLP-1(7-37)); Glucagon-like
DE peptide 1(7-36) (GLP-1(7-36)); Glucagon-like peptide 2 (GLP-2)].
GN Name=CGC;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominoidea;
OC Homo.
OX NCBI_TaxID=9606;
RN 11 Nucleotide Sequence.
RA Drucker D.J., Asa S.;
RT "Glucagon gene expression in vertebrate brain."
RL J. Biol. Chem. 263:13475-13478(1988).
RN 12 Nucleotide Sequence.
RX MEDLINE=86259053; PubMed=3725587;
RA White J.W., Saunders G.F.;
RT "Structure of the human glucagon gene."
RL Nucleic Acids Res. 14:4719-4730(1986).
RN 13 Nucleotide Sequence.
RC TISSUE=Liver;
RX MEDLINE=83271477; PubMed=6877358;
RA Bell G.I., Sanchez-Pescador R., Laybourn P.J., Najarian R.C.;
RT "Exon duplication and divergence in the human preproglucagon gene."
RL Nature 304:368-371(1983).
RN 14 Nucleotide Sequence [LARGE SCALE MRNA].
RA Kalinine N., Chen X., Rolfs A., Halleck A., Hines L., Eisenstein S.,
RA Koundinya M., Raphael J., Moreira J., Kelley T., Labaer J., Lin Y.,
RA Pheasant M., Farmer A.;
RT "Cloning of human full-length cDNAs in BD Creator(TM) system donor
RT vector."
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
RN 15 Nucleotide Sequence [LARGE SCALE MRNA].
RP TISSUE=Pancreas;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strauberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shennan C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Udell T.B., Toshiyuki S., Carninci P., Muliyil S.,
RA Raha S.S., Loguercio N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
RA Bosak S.A., McEwan P.U., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Wozniak K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Raley J., Helton R., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakeley R.M., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Buttefield Y.S.N., Krzywinski M.I., Skalska U., Smalins D.E.,
RA Schenck A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences."
RL Proc. Natl. Acad. Sci. U.S.A. 99:16699-16903(2002).
RN 16 PROTEIN SEQUENCE OF 53-81.
RP PubMed=11946536;
RX Thomsen J., Kristiansen K., Brunfeldt K., Sundby F.;
RT "The amino acid sequence of human glucagon."
RL FEBS Lett. 21:315-319(1972).
RN 17 PROTEIN SEQUENCE OF 98-127.
RP MEDLINE=89327238; PubMed=2753890;
RX Orskov C., Bersani M., Johnsen A.H., Hoejrup P., Holst J.J.;

RT "Complete sequences of glucagon-like peptide-1 from human and pig
RT small intestine.";
RL J. Biol. Chem. 264:12826-12829(1989).
RN [8]
RP FUNCTION OF GLP1 BIOACTIVE FORMS.
RA MEDLINE=93246081; PubMed=8482423;
RX Orekav C., Wettergren A., Holst J.J.;
RY "Biological effects and metabolic rates of glucagonlike peptide-1-7-37
RT amide and glucagonlike peptide-1-7-37 in healthy subjects are
RT indistinguishable";
RL Diabetes 42:658-661(1993).
RN [9]
RP FUNCTION OF OXYTOMODULIN.
RA MEDLINE=22919492; PubMed=14557443; DOI=10.1210/jc.2003-030421;
RX Cohen M.A., Ellis S.M., Le Roux C.W., Batterham R.L., Park A.,
RY Paterson M., Frost G.S., Ghatei M.A., Bloom S.R.;
RT "Oxytomodulin suppresses appetite and reduces food intake in
RT humans";
RL Acta Paediatr. 92:1175-1179(2003).
RN [11]
RP PROCESSING BY PCSK2.
RX MEDLINE=97431623; PubMed=2987128; DOI=10.1016/S0014-5793(97)00892-2;
RA Rouille Y., Bianchi M., Irminger J.C., Halban P.A.;
RY "Role of the prohormone convertase PC2 in the processing of
RT proglucagon to glucagon."
RL FEBS Lett. 413:119-123(1997).
RN [12]
RP PROCESSING BY PCSK1.
RX MEDLINE=22538993; PubMed=12651102; DOI=10.1016/S1046-5528(02)00653-8;
RA Bonic A., Mackin R.B.;
RY "Expression, purification, and PC1-mediated processing of human
RT proglucagon, glicentin, and major proglucagon fragment.";
RL Protein Expr. Purif. 28:15-24(2003).
RN [13]
RP REVIEW.
RX PubMed=14719035; DOI=10.1139/y03-107;
RA Brubaker P.L., Anil Y.;
RY "Direct and indirect mechanisms regulating secretion of glucagon-like
RT peptide-1 and glucagon-like peptide-2.";
RL Can. J. Physiol. Pharmacol. 81:1005-1012(2003).
RN [14]
RP REVIEW.
RX MEDLINE=22442611; PubMed=12554744; DOI=10.1210/me.2002-0306;
RA Drucker D.J.;
RY "Glucagon-like peptides: regulators of cell proliferation,
RT differentiation, and apoptosis";
RL Mol. Endocrinol. 17:161-171(2003).
RN [15]
RP REVIEW.
RX MEDLINE=22513095; PubMed=12626323; DOI=10.1152/ajpendo.00492.2002;
RA Jiang G., Zhang B.B.;
RY "Glucagon and regulation of glucose metabolism.";
RT Am. J. Physiol. 284:E671-E678(2003).
RN [16]
RP REVIEW.
RX PubMed=10322410;
RA Drucker D.J.;
RY "Glucagon-like peptide 2.";
RL Trends Endocrinol. Metab. 10:153-156(1999).
RN [17]
RP REVIEW.
RX MEDLINE=20073561; PubMed=10605628; DOI=10.1210/er.20.6.876;
RA Kieffer T.J., Habener J.F.;
RY "The glucagon-like peptides.";
RL Endocr. Rev. 20:876-913(1999).
RN [18]

DE (GRP): Oxyntomodulin (OXY) (OXM); Glucagon; Glucagon-like peptide 1 (GLP-1); Glucagon-like peptide 1(7-37) (GLP-1(7-37)); Glucagon-like peptide 1(7-36) (GLP-1(7-36)); Glucagon-like peptide 2 (GLP-2)).

GN Name=Cg;

OS Rattus norvegicus (Rat);

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi; Muridae; Muridae; Murinae; Rattus.

NCBI_TaxID=10116;

OX NCBI_TaxID=10116;

RN NCBI_TaxID=10116;

RP NUCLEOTIDE SEQUENCE.

RX MEDLINE=85054853; PubMed=6094539;

RA Heinrich G., Gros P., Habener J.F.;

RT "Glucagon gene sequence. Four of six exons encode separate functional domains of rat pre-proglucagon.";

RL J. Biol. Chem. 259:14082-14087(1984).

RL (2)

RN NUCLEOTIDE SEQUENCE.

RX MEDLINE=85051023; PubMed=6548696;

RA Heinrich G., Gros P., Lund P.K., Bentley R.C., Habener J.F.;

RT "Pre-proglucagon messenger ribonucleic acid: nucleotide and encoded amino acid sequences of the rat pancreatic complementary deoxyribonucleic acid.";

RL Endocrinology 115:2176-2181(1984).

RN (3)

RP NUCLEOTIDE SEQUENCE.

RX MEDLINE=86304324; PubMed=3528148;

RA Mojsov S., Heinrich G., Wilson I.B., Ravazzola M., Orci L., Habener J.F.;

RT "Preproglucagon gene expression in pancreas and intestine diversifies at the level of post-translational processing.";

RL J. Biol. Chem. 261:11880-11889(1986).

RL (4)

RP PROTEIN SEQUENCE OF 53-89.

RX MEDLINE=95023911; PubMed=7937770;

RA Collier N.L., Walsh J.H., Wong H.C., Shively J.E., Davis M.T., Lee T.D., Reeve J.R., Jr.;

RT "Purification and sequence of rat oxyntomodulin.";

RL Proc. Natl. Acad. Sci. U.S.A. 91:9362-9366(1994).

RL (5)

RP FUNCTION OF OXYNTOMODULIN.

RX MEDLINE=21448403; PubMed=11564680; DOI=10.1210/en.142.10.4244;

RA Dakin C.L., Gunn I., Small C.J., Edwards C.M., Hay D.L., Smith D.M., Ghatei M.A., Bloom S.R.;

RT "Oxyntomodulin inhibits food intake in the rat.";

RL Endocrinology 142:4244-4250(2001).

RN (6)

RP PROCESSING BY PCSK1 AND PCSK2.

RX MEDLINE=86282838; PubMed=8721980; DOI=10.1210/me.10.4.342;

RA Dhanvantari S., Seidah N.G., Brubaker P.L.;

RT "Role of prohormone convertases in the tissue-specific processing of proglucagon.";

RL Mol. Endocrinol. 10:342-355(1996).

RN (7)

RP TISSUE SPECIFICITY.

RX MEDLINE=90243673; PubMed=1692320;

RA Mojsov S., Kopiczynski M.G., Habener J.F.;

RT "Both amidated and nonamidated forms of glucagon-like peptide I are synthesized in the rat intestine and the pancreas.";

RL J. Biol. Chem. 265:8001-8008(1990).

RN (8)

RP REVIEW.

RX PubMed=14719035; DOI=10.1139/Y03-107;

RA Brubaker P.L., Anil Y.;

RT "Direct and indirect mechanisms regulating secretion of glucagon-like peptide-1 and glucagon-like peptide-2.";

RL Can. J. Physiol. Pharmacol. 81:1005-1012(2003).

RN (9)

RP REVIEW.

RX MEDLINE=22442611; PubMed=12554744; DOI=10.1210/me.2002-0306;

RA Drucker D.J.;

RT "Glucagon-like peptides: regulators of cell proliferation, differentiation, and apoptosis.";

RL

RL Mol. Endocrinol. 17:161-171(2003).

RN (10)

RP REVIEW.

RX MEDLINE=22513095; PubMed=12626323; DOI=10.1152/ajpendo.00492.2002;

RA Jiang G., Zhang B.B.;

RT "Glucagon and regulation of glucose metabolism.";

RL Am. J. Physiol. 284:E671-E678(2003).

RN (11)

RP REVIEW.

RX PubMed=10322410;

RA Drucker D.J.;

RT "Glucagon-like peptide 2.";

RL Trends Endocrinol. Metab. 10:153-156(1999).

RN (12)

RP REVIEW.

RX MEDLINE=20073561; PubMed=10605628; DOI=10.1210/er.20.6.876;

RA Kieffer T.J., Habener J.F.;

RT "The glucagon-like peptides.";

RL Endocr. Rev. 20:876-913(1999).

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CC -1- FUNCTION: GLP-1 is a potent stimulator of glucose-dependent insulin release. Play important roles on gastric motility and the suppression of plasma glucagon levels. May be involved in the suppression of satiety and stimulation of glucose disposal in peripheral tissues, independent of the actions of insulin. Have growth-promoting activities on intestinal epithelium. May also regulate the hypothalamic pituitary axis (HPA) via effects on LH, TSH, CRH, oxytocin, and vasopressin secretion. Increases islet mass through stimulation of islet neogenesis and pancreatic beta cell proliferation. Inhibits beta cell apoptosis.

CC -1- FUNCTION: GLP-2 stimulates intestinal growth and up-regulates villus height in the small intestine, concomitant with increased crypt cell proliferation and decreased enterocyte apoptosis. The gastrointestinal tract, from the stomach to the colon is the principal target for GLP-2 action. Plays a key role in nutrient homeostasis, enhancing nutrient assimilation through enhanced gastrointestinal function, as well as increasing nutrient disposal. Stimulates intestinal glucose transport and decreases mucosal permeability.

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CC -1- FUNCTION: Glucagonin may modulate gastric acid secretion and the gastro-pyloro-duodenal activity.

CC -1- SUBCELLULAR LOCATION: Secreted.

CC -1- TISSUE SPECIFICITY: Glucagon is secreted in the A cells of the islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glucagonin are secreted from enteroregulatory cells throughout the gastrointestinal tract.

CC -1- INDUCTION: Glucagon release is stimulated by hypoglycemia and inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and GLP-2 are induced in response to nutrient ingestion.

CC -1- PTM: Proglucagon is posttranslationally processed in a tissue-specific manner in pancreatic A cells and intestinal L cells. In pancreatic A cells, the major bioactive hormone is glucagon cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1 liberates GLP-1, GLP-2, glucagonin and oxyntomodulin. GLP-1 is further N-terminally truncated by posttranslational processing in the intestinal L cells resulting in GLP-1(7-37) GLP-1-(7-36)amide. The C-terminal amidation is neither important for the metabolism of GLP-1 nor for its effects on the endocrine pancreas.

CC -1- SIMILARITY: Belongs to the glucagon family.

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CC EMBL; K02813; AAA41235.1; -; Genomic_DNA.

DR EMBL; K02809; AAA41235.1; JOINED; Genomic_DNA.
 DR EMBL; K02810; AAA41235.1; JOINED; Genomic_DNA.
 DR EMBL; K02811; AAA41235.1; JOINED; Genomic_DNA.
 DR EMBL; K02812; AAA41235.1; JOINED; Genomic_DNA.
 DR PIR; A22655; GCRT.
 DR HSSP; P01275; IDOR.
 DR Ensemble; ENSRNOG000005498; Rattus norvegicus.
 DR RGD; 2668; Gcg.
 DR GO; GO:0005179; F: hormone activity; TAS.
 DR GO; GO:0019538; P: protein metabolism; TAS.
 DR GO; GO:006109; P: regulation of carbohydrate metabolism; TAS.
 DR GO; GO:0019216; P: regulation of lipid metabolism; TAS.
 DR InterPro; IPR000532; Glucagon.
 DR Pfam; PF00123; Hormone 2; 3.
 DR PRINTS; PR00275; GLUCAGON.
 DR PROSITE; PS00260; GLUCAGON; 4.
 KW Amidation; Cleavage on pair of basic residues;
 KW Direct protein sequencing; Glucagon family; Hormone; Signal.
 FT SIGNAL 1 20
 FT PEPTIDE 21 89
 FT PEPTIDE 21 50
 FT PEPTIDE 53 89
 FT PEPTIDE 53 81
 FT PROPER 84 89
 FT PEPTIDE 92 128
 FT PEPTIDE 98 128
 FT PEPTIDE 98 127
 FT PROPER 131 145
 FT PEPTIDE 146 178
 FT SITE 52 53
 FT SITE 83 84
 FT SITE 91 92
 FT SITE 97 98
 FT SITE 130 131
 FT SITE 145 146
 FT MOD_RES 127 127
 FT SEQUENCE 180 AA; 20846 MW; 76931409D03C7978 CRC64;
 SQ
 Query Match 51.9%; Score 241.5; DB 1; Length 180;
 Best Local Similarity 60.3%; Pred. No. 2,3e-17;
 Matches 47; Conservative 7; Mismatches 9; Indels 15; Gaps 1;
 QY 27 DKRHGEFTSDVSYIEGQAKERFAMLVK-----GRHGEFTSDVSS 71
 DB 50 DKHSGQFTSDYSKYLSRRADFYQMLNMTKRNNNIAKRHDEFRHAGFTSDVSS 109
 QY 72 YIEGQAKERFAMLVKGR 89
 DB 110 YIEGQAKERFAMLVKGR 127
 RESULT 11
 ID GLUC_CAVPO STANDARD; PRT; 180 AA.
 AC P05110;
 DT 13-AUG-1987 (Rel. 05, Created)
 DT 13-AUG-1987 (Rel. 05, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, last annotation update)
 DE Glucagon precursor [Contains: Glucosylated; Glucosylated polypeptide
 DE (GRP); Oxyntomodulin (OXT) (OXM); Glucagon; Glucagon-like peptide 1
 DE (GLP-1); Glucagon-like peptide 1(7-37) (GLP-1(7-37)); Glucagon-like
 DE peptide 1(7-36) (GLP-1(7-36)); Glucagon-like peptide 2 (GLP-2)].
 GN Name=CG;
 OS Cavia porcellus (Guinea pig).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
 OC Hystricognathi; Caviidae; Cavia.
 OC NCBI_Taxid=10141;

RN [1]
 RN NUCLEOTIDE SEQUENCE.
 RX MEDLINE=86448118; PubMed=3755107; DOI=10.1016/0014-5793(86)81429-6;
 RA Seino S., Welsh M., Bell G.I., Chan S.-J., Steiner D.F.;
 RT "Mutations in the guinea pig preproglucagon gene are restricted to a
 RT specific portion of the prohormone sequence.";
 RL FEBS Lett. 203:25-30(1986).
 RN [2]
 RP PROTEIN SEQUENCE OF 53-81.
 RX MEDLINE=86165412; PubMed=3956884;
 RA Huang C.-G., Eng J., Pan Y.-C.E., Holmes J.D., Yalow R.S.;
 RT "Guinea pig glucagon differs from other mammalian glucagons.";
 RL Diabetes 35:508-512(1986).
 RN [3]
 RP PARTIAL PROTEIN SEQUENCE OF 53-89.
 RX MEDLINE=86017849; PubMed=4048553; DOI=10.1016/0167-0115(85)90203-4;
 RA Conlon J.M., Hansen H.F., Schwartz T.W.;
 RT "Primary structure of glucagon and a partial sequence of oxyntomodulin
 RT (glucagon-37) from the guinea pig.";
 RL Regul. Pept. 11:309-320(1985).
 RN [4]
 RP REVIEW.
 RX MEDLINE=22442611; PubMed=12554744; DOI=10.1210/me.2002-0306;
 RA Drucker D.J.;
 RT "Glucagon-like peptides: regulators of cell proliferation,
 RT differentiation, and apoptosis.";
 RL Mol. Endocrinol. 17:161-171(2003).
 RN [5]
 RP REVIEW.
 RX MEDLINE=22513095; PubMed=12626323; DOI=10.1152/ajpendo.00492.2002;
 RA Jiang G., Zhang B.B.;
 RT "Glucagon and regulation of glucose metabolism.";
 RL Am. J. Physiol. 284:E671-E678(2003).
 RN [6]
 RP REVIEW.
 RX PubMed=10322410;
 RA Drucker D.J.;
 RT "Glucagon-like peptide 2.";
 RL Trends Endocrinol. Metab. 10:153-156(1999).
 RN [7]
 RP REVIEW.
 RX MEDLINE=20073561; PubMed=10605628; DOI=10.1210/er.20.6.876;
 RA Kieffer T.U., Habener J.F.;
 RT "The glucagon-like peptides.";
 RL Endocr. Rev. 20:876-913(1999).
 CC -1- FUNCTION: Glucagon plays a key role in glucose metabolism and
 CC homeostasis. Regulates blood glucose by increasing gluconeogenesis
 CC and decreasing glycolysis. A counterregulatory hormone of insulin,
 CC raises plasma glucose levels in response to insulin-induced
 CC hypoglycemia (By similarity).
 CC -1- FUNCTION: GLP-1 is a potent stimulator of glucose-dependent
 CC insulin release. Play important roles on gastric motility and the
 CC suppression of satiety and stimulation of glucose disposal in
 CC peripheral tissues, independent of the actions of insulin. Have
 CC growth-promoting activities on intestinal epithelium. May also
 CC regulate the hypothalamic pituitary axis (HPA) via effects on LH,
 CC TSH, CRH, oxytocin, and vasopressin secretion. Increases islet
 CC mass through stimulation of islet neogenesis and pancreatic beta
 CC cell proliferation (By similarity).
 CC -1- FUNCTION: GLP-2 stimulates intestinal growth and up-regulates
 CC villus height in the small intestine, concomitant with increased
 CC crypt cell proliferation and decreased enterocyte apoptosis. The
 CC gastrointestinal tract, from the stomach to the colon is the
 CC principal target for GLP-2 action. Plays a key role in nutrient
 CC homeostasis, enhancing nutrient assimilation through enhanced
 CC gastrointestinal function, as well as increasing nutrient
 CC disposal. Stimulates intestinal glucose transport and decreases
 CC mucosal permeability (By similarity).
 CC -1- FUNCTION: Oxyntomodulin significantly reduces food intake (By
 CC similarity).
 CC -1- FUNCTION: Glucagon may modulate gastric acid secretion and
 CC gastro-pyloro-duodenal activity (By similarity).


```
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- INDUCTION: Glucagon release is stimulated by hypoglycemia and
CC inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and
CC GLP-2 are induced in response to nutrient ingestion (By
CC similarity).
CC -1- PM: Proglucagon is posttranslationally processed in a tissue-
CC specific manner in pancreatic A cells and intestinal L cells. In
CC pancreatic A cells, the major bioactive hormone is glucagon
CC cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1
CC liberates GLP-1, GLP-2, glucagon and oxyntomodulin. GLP-1 is
CC further N-terminally truncated by posttranslational processing in
CC the intestinal L cells resulting in GLP-1(7-37) GLP-1(7-36)amide.
CC The C-terminal amidation is neither important for the metabolism
CC of GLP-1 nor for its effects on the endocrine pancreas (By
CC similarity).
CC -1- SIMILARITY: Belongs to the glucagon family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; D00014; BAA00010.1; -; mRNA.
DR PIR; A24856; GCGP.
DR HSBP; P01275; IDOR.
DR InterPro; IPR000532; Glucagon.
DR Pfam; PF00123; Hormone_2; 3.
DR PRINTS; PR00275; GLUCAGON.
DR PROSITE; PS00260; GLUCAGON; 4.
KW Amidation; cleavage on pair of basic residues;
KW Direct protein sequencing; Glucagon family; Hormone; Signal.
FT SIGNAL 1 20
FT PEPIDE 21 89
FT PEPIDE 21 50
FT PEPIDE 53 89
FT PEPIDE 53 81
FT PROPEP 84 89
FT PROPEP 92 128
FT PEPIDE 98 128
FT PEPIDE 98 127
FT PEPIDE 131 145
FT PEPIDE 146 178
FT SITE 52 53
FT SITE 83 84
FT SITE 91 92
FT SITE 97 98
FT SITE 130 131
FT SITE 145 146
FT MOD_RES 127 127
SQ SEQUENCE 180 AA; 20972 MW; 702FB18161D2776 CRC64;
Query Match 51.7%; Score 240.5; DB 1; Length 180;
Best Local Similarity 60.3%; Pred. No. 3e-17;
Matches 47; Conservative 7; Mismatches 9; Indels 15; Gaps 1;
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AC Q6RYB2;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Proglucagon (Fragment).
OS Bulo marinus (Giant toad) (Cane toad).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Bufonidae; Bulo.
OX NCBI_Taxid=8386;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Intestine;
RA Busby E.R., Brown G.D., Mommesen T.P.;
RL Submitted (NOV-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY485819; AAS57655.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR InterPro; IPR000532; Glucagon.
DR Pfam; PF00123; Hormone_2; 3.
DR SMART; SM00070; GLUCA; 3.
DR PROSITE; PS00260; GLUCAGON; 3.
FT NON_TER 1 1
SQ SEQUENCE 149 AA; 17322 MW; 2F99199A0778B8AF CRC64;
Query Match 51.2%; Score 238; DB 2; Length 149;
Best Local Similarity 51.6%; Pred. No. 4.4e-17;
Matches 47; Conservative 16; Mismatches 14; Indels 14; Gaps 2;
QY 13 FVQGLEHTHRGSLDK-----RHGEGFTSDVSYLEGQAKEFIAMLVK----- 58
DB 2 FAQWLAKNSKSGSGSRNVOFERRAEGTYINDVQFLERKAKEFIDMLKGLPKKQRLS 61
QY 59 RHGEGFTSDVSYLEGQAKEFIAMLVKGR 89
DB 62 RHAEGTSDMTSFLERKAKEFVDWLKGR 92
RESULT 13
GLUCI_XENLA STANDARD; PRT; 266 AA.
AC 042143;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Glucagon I precursor [contains: Glucagon; Glucagon-like peptide 1A
DE (GLP-1A); Glucagon-like peptide 1B (GLP-1B); Glucagon-like peptide 1C
DE (GLP-1C); Glucagon-like peptide 2 (GLP-2)].
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_Taxid=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE, AND ALTERNATIVE SPLICING.
RC TISSUE=Pancreas;
RL MEDLINE=97368292; PubMed=9223287; DOI=10.1073/pnas.94.15.7915;
RA Irwin D.M., Satkumartajh M., Wen Y., Brubaker P.L., Pederson R.A.,
RA Wheeler M.B.;
RT "The Xenopus proglucagon gene encodes novel GLP-1-like peptides with
RT insulinotropic properties."
RL Proc. Natl. Acad. Sci. U.S.A. 94:7915-7920(1997).
CC -1- FUNCTION: Promotes hydrolysis of glycogen and lipids, and raises
CC the blood sugar level.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1;
CC IsoId=O42143-1; Sequence=Displayed;
CC Name=2;
CC IsoId=O42143-2; Sequence=VSP_001755;
CC -1- SIMILARITY: Belongs to the glucagon family.
CC -----
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CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.

DR EMBL: AF004432; AAB6560.1; -, mRNA.
DR HSSP: P01274; 1GCN.
DR InterPro: IPR000532; Glucagon.
DR Pfam: PF00123; Hormone 2; 5.
DR PRINTS: PR00275; GLUCAGON.
DR PROSITE: PS00260; GLUCAGON; 5.
KW Alternative splicing; Cleavage on pair of basic residues;
KW Glucagon family; Hormone; Multigene family; Signal.
FT SIGNAL 1 20
FT PROPEP 21 50 Potential.
FT PEPTIDE 53 81 Glucagon.
FT PROPEP 84 95
FT PEPTIDE 97 133 Glucagon-like peptide 1A.
FT PROPEP 136 140
FT PEPTIDE 142 172 Glucagon-like peptide 1B.
FT PROPEP 175 178
FT PEPTIDE 180 210 Glucagon-like peptide 1C.
FT PROPEP 213 224
FT PEPTIDE 227 259 Glucagon-like peptide 2.
FT PROPEP 261 266
FT VARSPLIC 214 261 Missing (in isoform 2).
FT FTID=VSP 001755.
SQ SEQUENCE 266 AA; 30951 MW; 544F7BEC20AF872C CRC64;
Query Match 51.2%; Score 238; DB 1; Length 266;
Best Local Similarity 57.9%; Pred. No. 8.3e-17;
Matches 44; Conservative 14; Mismatches 10; Indels 8; Gaps 1;
QY 22 RRGSLDKRHGEFTSDVSSYLEGQAKEFIAMLVKG-----RHGEFTSDVSSYL 73
DB 134 RRNABERRHAEHYTNDVTEYLEKAKKEFIEMWLNKPKKIRYSRHAGFTINDMTNL 193
QY 74 EGQAKEFIAMLVKGR 89
DB 194 EERKAKEFVGMVLIKGR 209
RESULT 14
Q6D124 XENTR
ID Q6D124 XENTR PRELIMINARY; PRT; 266 AA.
AC Q6D124;
DT 25-OCT-2004 (TrEMBLrel. 28, Created)
DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE Glucagon.
GN Name=gcg-prov;
OS Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidoidea; Pipidae;
OC Xenopodinae; Xenopus; Silurana.
OC NCBI_TaxID=8364;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole body;
RX MEDLINE=2338257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L.; Feingold E.A.; Grouse L.H.; Derge J.G.;
RA Klausner R.D.; Collins F.S.; Wagner L.; Shenman C.M.; Schuler G.D.;
RA Altschul S.F.; Zeeberg B.; Buetow K.H.; Schaefer C.F.; Bhat N.K.;
RA Hopkins R.F.; Jordan H.; Moore T.; Max S.I.; Wang J.; Haieh F.;
RA Diatchenko L.; Marusik K.; Farmer A.A.; Rubin G.M.; Hong L.;
RA Stapleton M.; Soares M.B.; Bonaldo M.F.; Casavant T.L.; Scheetz T.E.;
RA Brownstein M.J.; Uebin T.B.; Toshiyuki S.; Carninci P.; Pirange C.;
RA Raha S.S.; Loquellano N.A.; Peters G.J.; Abramson R.D.; Mullany S.J.;
RA Bosak S.A.; McKernan P.J.; McKernan K.J.; Malek J.A.; Gunaratne P.H.;
RA Richards S.; Worley K.C.; Hale S.; Garcia A.M.; Gay L.U.; Huylk S.W.;
RA Villalon D.K.; Wuzny D.M.; Sodergren E.J.; Lu X.; Gibbs R.A.;
RA Fahy J.; Helton E.; Kettman M.; Madan A.; Rodriguez S.; Sanchez A.;
RA Whiting M.; Madan A.; Young A.C.; Shevchenko Y.; Bouffard G.G.

RA Blakesley R.W.; Touchman J.W.; Green E.D.; Dickson M.C.;
RA Rodriguez A.C.; Grimwood J.; Schmutz J.; Myers R.M.;
RA Butlerfield Y.S.N.; Krzywicki M.I.; Skalska U.; Smailus D.E.;
RA Schnerch A.; Schein J.E.; Jones S.J.M.; Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences";
RT Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole body;
RX Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
RA Klein S.; Gerhard D.S.;
DR EMBL: BC075391; AAB75391.1; -, mRNA.
DR GO: GO:0005576; Cytoplasmic region; IEA.
DR GO: GO:0005179; F-hormone activity; IEA.
DR InterPro: IPR000532; Glucagon.
DR Pfam: PF00123; Hormone 2; 5.
DR PRINTS: PR00275; GLUCAGON.
DR SMART: SM00070; GLUCA; 5.
DR PROSITE: PS00260; GLUCAGON; 5.
SQ SEQUENCE 266 AA; 30809 MW; 47BAE7DD28BF7EA CRC64;
Query Match 50.2%; Score 233.5; DB 2; Length 266;
Best Local Similarity 48.0%; Pred. No. 2.5e-16;
Matches 47; Conservative 14; Mismatches 16; Indels 21; Gaps 2;
QY 13 FVQGLEHTRRRGSIDK-----RHGEFTSDVSSYLEGQAKEFIAMLVKG----- 58
DB 74 FIQWLNTRRSGSLSRNNDYERHAGFTSDVTEYLEKAKKEFIEMWLNKPKKIRYSRHAGFTINDMTNL 193
QY 59 -----RHGEFTSDVSSYLEGQAKEFIAMLVKGR 89
DB 134 RRNABERRHAEHYTNDVTEYLEKAKKEFIEMWLNK 171
RESULT 15
GLUC_OCTDE
ID GLUC_OCTDE STANDARD; PRT; 180 AA.
AC P22890;
DT 01-AUG-1991 (Rel. 19, Created)
DT 01-AUG-1991 (Rel. 19, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Glucagon precursor (Contans; Glucantins; Glucantins-related polypeptide
DE (GRP); Oxytocinodulin (OXY) (OXM); Glucagon; Glucagon-like peptide 1
DE (GRP-1); Glucagon-like peptide 1(7-37) (GRP-1(7-37)); Glucagon-like
DE peptide 1(7-36) (GRP-1(7-36)); Glucagon-like peptide 2 (GRP-2)).
GN Name=gcg;
OS Octodon degus (Degu).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
OC Hystricognathi; Octodontidae; Octodon.
OC NCBI_TaxID=10160;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=9115952; PubMed=2293024;
RA Nishi M.; Steiner D.F.;
RT "Cloning of complementary DNAs encoding islet amyloid polypeptide,
RT insulin, and glucagon precursors from a New World rodent, the degu,
RT Octodon degus";
RT Mol. Endocrinol. 4:1192-1198(1990).
RN [2]
RP REVIEW.
RX PubMed=12554744; DOI=10.1210/me.2002-0306;
RA Drucker D.J.;
RT "Glucagon-like peptides: regulators of cell proliferation,
RT differentiation, and apoptosis";
RT Mol. Endocrinol. 17:161-171(2003).
RN [3]
RP REVIEW.
RX PubMed=12626323; DOI=10.1152/ajpendo.00492.2002;
RA Jiang G.; Zhang B.B.;
RT "Glucagon and regulation of glucose metabolism";
RT Am. J. Physiol. 284:E671-E678(2003).

RN [4]
 REVIEW
 RX PubMed:10322410;
 RA Drucker D.J.;
 RT "Glucagon-like peptide 2.";
 RL Trends Endocrinol. Metab. 10:153-156(1999).
 RN [5]
 REVIEW
 RX PubMed:10605628; DOI=10.1210/er.20.6.876;
 RA Kieffer T.J., Habener J.F.;
 RT "The glucagon-like peptide.";
 RL Endocr. Rev. 20:876-913(1999).
 CC -1- FUNCTION: Glucagon plays a key role in glucose metabolism and homeostasis. Regulates blood glucose by increasing gluconeogenesis and decreasing glycolysis. A counterregulatory hormone of insulin, raises plasma glucose levels in response to insulin-induced hypoglycemia (By similarity).
 CC -1- FUNCTION: GLP-1 is a potent stimulator of glucose-dependent insulin release. Play important roles on gastric motility and the suppression of satiety and stimulation of glucose disposal in peripheral tissues, independent of the actions of insulin. Have growth-promoting activities on intestinal epithelium. May also regulate the hypothalamic pituitary axis (HPA) via effects on LH, TSH, CRH, oxytocin, and vasopressin (By similarity).
 CC -1- FUNCTION: GLP-2 stimulates intestinal growth and up-regulates villus height in the small intestine, concomitant with increased crypt cell proliferation and decreased enterocyte apoptosis. The gastrointestinal tract, from the stomach to the colon is the principal target for GLP-2 action. Plays a key role in nutrient homeostasis, enhancing nutrient assimilation through enhanced gastrointestinal function, as well as increasing nutrient disposal. Stimulates intestinal glucose transport and decreases mucosal permeability (By similarity).
 CC -1- FUNCTION: Glucagonin may modulate gastric acid secretion and gastro-pyloro-duodenal activity (By similarity).
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: Glucagon is secreted in the A cells of the islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glicentin are secreted from enteroendocrine cells throughout the gastrointestinal tract. GLP1 and GLP2 are also secreted in selected neurons in the brain.
 CC -1- INDUCTION: Glucagon release is stimulated by hypoglycemia and inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and GLP-2 are induced in response to nutrient ingestion (By similarity).
 CC -1- PTM: Proglucagon is posttranslationally processed in a tissue-specific manner in pancreatic A cells and intestinal L cells. In pancreatic A cells, the major bioactive hormone is glucagon cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1 liberates GLP-1, GLP-2, glicentin and oxyntomodulin. GLP-1 is further N-terminally truncated by posttranslational processing in the intestinal L cells resulting in GLP-1(7-37) GLP-1(7-36)amide. The C-terminal amidation is neither important for the metabolism of GLP-1 nor for its effects on the endocrine pancreas (By similarity).
 CC -1- SIMILARITY: Belongs to the glucagon family.
 CC -----
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 CC -----
 CC EMBL: M57688; AAA40588.1; -; mRNA.
 CC PIR: C36118; GCRTDU.
 CC HSSP: P01275; IDOR.
 CC InterPro: IPR000532; Glucagon.
 CC Pfam: PF00123; Hormone_2; 3.
 CC PRINTS: PR00275; GLUCAGON.
 CC PROSITE: PS00260; GLUCAGON; 4.
 CC Amidation: Cleavage on pair of basic residues; Glucagon family;
 KW Hormone; Signal.

FT	SIGNAL	1	20	
FT	PEPTIDE	21	89	Glicentin (By similarity).
FT	PEPTIDE	21	50	Glicentin-related polypeptide (By similarity).
FT	PEPTIDE	53	89	Oxyntomodulin (By similarity).
FT	PEPTIDE	53	81	Glucagon (By similarity).
FT	PROPEP	84	89	By similarity.
FT	PEPTIDE	92	128	Glucagon-like peptide 1 (By similarity).
FT	PEPTIDE	98	128	Glucagon-like peptide 1(7-37) (By similarity).
FT	PEPTIDE	98	127	Glucagon-like peptide 1(7-36) (By similarity).
FT	PROPEP	131	145	By similarity.
FT	PEPTIDE	146	178	Glucagon-like peptide 2 (By similarity).
FT	SITE	52	53	Cleavage (by PCSK2) (By similarity).
FT	SITE	83	84	Cleavage (by PCSK1 and PCSK2) (By similarity).
FT	SITE	91	92	Cleavage (by PCSK1) (By similarity).
FT	SITE	97	98	Cleavage (by PCSK1) (By similarity).
FT	SITE	130	131	Cleavage (by PCSK1) (By similarity).
FT	SITE	145	146	Cleavage (by PCSK1) (By similarity).
FT	MOD_RSS	127	127	Arginine amide (G-128 provides amide group) (By similarity).
SQ	SEQUENCE	180 AA;	2166 MW;	6E8B36160A3051 CRC64;

Query Match 49.6%; Score 230.5; DB 1; Length 180;
 Best Local Similarity 59.0%; Pred. No. 3,3e-16;
 Matches 46; Conservative 7; Mismatches 10; Indels 15; Gaps 1;
 QY 27 DKRGEGTFTSDVSYLEGQAKETIAWLK-----GRHGEGTFTSDVSS 71
 DB 50 DKRHSGTFTSDVSKFLDTRADFLDWLKNTRYKNRNEIAKRHDEFERHAGTFTSDVSS 109
 QY 72 YLBSQAKETIAWLKGR 89
 DB 110 YLBSQAKETIAWLKGR 127

Search completed: April 19, 2006, 12:08:52
 Job time : 24.5142 secs

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GenCore version 5.1.7
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OM protein - protein search, using SW model

Run on: April 19, 2006, 12:09:12 ; Search time 5.62571 Seconds
 (without alignments)
 1307.948 Million cell updates/sec

Title: US-10-775-180-449

Sequence: 1 NAIPIYFLFLSFGQLEHT.....STLEGGAKKEFIAMLVKGR 89

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Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
 Maximum Match 100%
 Listing first 45 summaries

Database : Issued Patents AA:
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 2: /cgn2_6/ptodata/1/aa/6 COMB.pep:*
 3: /cgn2_6/ptodata/1/aa/8 COMB.pep:*
 4: /cgn2_6/ptodata/1/aa/PCTUS COMB.pep:*
 5: /cgn2_6/ptodata/1/aa/RE COMB.pep:*
 6: /cgn2_6/ptodata/1/aa/backfile1.pep:*

Pred. No. is the number of results predicted by chance to have a
 score greater than or equal to the score of the result being printed,
 and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	243.5	52.4	180	2 US-08-784-582-58	Sequence 58, Appl
2	241.5	51.9	180	2 US-08-784-582-56	Sequence 56, Appl
3	241.5	51.9	180	2 US-09-635-679E-2	Sequence 2, Appl
4	237.5	51.1	180	2 US-08-784-582-61	Sequence 61, Appl
5	235.5	50.6	360	2 US-08-784-582-73	Sequence 73, Appl
6	164	35.3	36	2 US-09-614-847-119	Sequence 119, App
7	164	35.3	42	2 US-09-614-847-118	Sequence 118, App
8	157	33.8	30	2 US-09-209-799D-15	Sequence 15, Appl
9	157	33.8	30	2 US-09-614-847-87	Sequence 87, Appl
10	157	33.8	30	2 US-09-614-847-112	Sequence 112, App
11	157	33.8	30	2 US-09-614-847-113	Sequence 113, App
12	157	33.8	30	2 US-09-997-792A-13	Sequence 13, Appl
13	157	33.8	31	2 US-09-209-799D-16	Sequence 16, Appl
14	157	33.8	31	2 US-09-614-847-111	Sequence 111, App
15	157	33.8	31	2 US-09-614-847-123	Sequence 123, App
16	157	33.8	31	2 US-09-997-792A-14	Sequence 14, Appl
17	157	33.8	32	2 US-09-614-847-147	Sequence 147, App
18	157	33.8	34	2 US-09-212-663-25	Sequence 25, Appl
19	157	33.8	36	1 US-08-095-162-15	Sequence 15, Appl
20	157	33.8	36	1 US-08-470-220A-15	Sequence 15, Appl
21	157	33.8	36	1 US-08-808-825-9	Sequence 9, Appl
22	157	33.8	36	1 US-08-899-324-1	Sequence 1, Appl
23	157	33.8	36	1 US-08-967-374-15	Sequence 15, Appl
24	157	33.8	36	2 US-08-329-892B-1	Sequence 1, Appl
25	157	33.8	36	2 US-09-302-596-2	Sequence 2, Appl
26	157	33.8	36	2 US-08-472-349-6	Sequence 6, Appl
27	157	33.8	36	2 US-09-333-415-2	Sequence 2, Appl

28	157	33.8	36	2 US-09-505-991-15	Sequence 15, Appl
29	157	33.8	36	2 US-09-303-016-2	Sequence 2, Appl
30	157	33.8	36	2 US-09-614-847-88	Sequence 88, Appl
31	157	33.8	36	2 US-09-614-847-90	Sequence 90, Appl
32	157	33.8	36	2 US-09-614-847-103	Sequence 103, App
33	157	33.8	36	2 US-09-805-507-2	Sequence 2, Appl
34	157	33.8	36	2 US-09-859-804-6	Sequence 6, Appl
35	157	33.8	36	2 US-09-943-084-6	Sequence 342, App
36	157	33.8	36	2 US-09-623-548A-342	Sequence 354, App
37	157	33.8	36	2 US-09-623-548A-354	Sequence 2, Appl
38	157	33.8	36	2 US-10-055-259-2	Sequence 342, App
39	157	33.8	36	2 US-09-657-276-342	Sequence 354, App
40	157	33.8	36	2 US-09-657-276-354	Sequence 2, Appl
41	157	33.8	36	2 US-09-982-978-2	Sequence 24, Appl
42	157	33.8	36	4 PCT-US95-15800-24	Sequence 19, Appl
43	157	33.8	37	1 US-08-095-162-19	Sequence 2, Appl
44	157	33.8	37	1 US-08-470-220A-19	Sequence 2, Appl
45	157	33.8	37	1 US-08-807-263-2	Sequence 2, Appl

ALIGNMENTS

RESULT 1
 US-08-784-582-58
 ; Sequence 58, Application US/08784582
 ; Patent No. 6110707
 ; GENERAL INFORMATION:
 ; APPLICANT: Newgard, Christopher B.
 ; APPLICANT: Halban, Philippe A.
 ; APPLICANT: No. 6110707mington, Karl D.
 ; APPLICANT: Clark, Samuel A.
 ; APPLICANT: Tzippen, Antice B.
 ; APPLICANT: Quade, Christian
 ; APPLICANT: Kruse, Fred
 ; APPLICANT: Mcgarry, Dennis
 ; TITLE OF INVENTION: RECOMBINANT EXPRESSION OF PROTEINS FROM
 ; NUMBER OF SEQUENCES: 79
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESS: Arnold, White & Durkee
 ; STREET: P.O. Box 4433
 ; CITY: Houston
 ; STATE: Texas
 ; COUNTRY: USA
 ; ZIP: 77210
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patentin Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/784,582
 ; FILING DATE: Concurrently Herewith
 ; CLASSIFICATION: 435
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 60/028,427
 ; FILING DATE: 15-OCT-1996
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/589,028
 ; FILING DATE: 19-JAN-1996
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Highlander, Steven L.
 ; REGISTRATION NUMBER: 37,642
 ; REFERENCE/DOCKET NUMBER: UTSD:514
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 512/474-7577
 ; TELEFAX: 512/474-7577
 ; INFORMATION FOR SEQ ID NO: 58:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 180 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS:

US-09-614-847-119

Query Match 35.3%; Score 164; DB 2; Length 36;

Best Local Similarity 96.9%; Pred. No. 5.4e-13;

Matches 31; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 28 KKHGGFTSDVSSYLEGQAQKEFIAMLVKGR 59

DB 5 KKHGGFTSDVSSYLEGQAQKEFIAMLVKGR 36

RESULT 7

US-09-614-847-118

Sequence 118, Application US/09614847

Patent No. 6528486

GENERAL INFORMATION:

APPLICANT: Larsen, Bjarne Due

APPLICANT: Mikkelsen, Jens Mollgaard

APPLICANT: Neve, Soren

TITLE OF INVENTION: NOVEL PEPTIDE AGONISTS OF GLP-1 ACTIVITY

FILE REFERENCE: 55511(45487)

CURRENT APPLICATION NUMBER: US/09/614,847

PRIOR FILING DATE: 2000-07-12

PRIOR APPLICATION NUMBER: US 60/143,591

PRIOR FILING DATE: 1999-07-13

NUMBER OF SEQ ID NOS: 153

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 118

LENGTH: 42

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE:

OTHER INFORMATION: Description of Artificial Sequence:

OTHER INFORMATION: Lys6-Gly8-GLP-1(7-36)-Lys6

US-09-614-847-118

Query Match 35.3%; Score 164; DB 2; Length 42;

Best Local Similarity 96.9%; Pred. No. 1.1e-12;

Matches 31; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 28 KKHGGFTSDVSSYLEGQAQKEFIAMLVKGR 59

DB 5 KKHGGFTSDVSSYLEGQAQKEFIAMLVKGR 36

RESULT 8

US-09-209-799D-15

Sequence 15, Application US/09209799D

Patent No. 6380357

GENERAL INFORMATION:

APPLICANT: Hermeling, Ronald

APPLICANT: Hoffmann, James

APPLICANT: Narasimhan, Chakravarthy

TITLE OF INVENTION: GLUCAGON-LIKE PEPTIDE-1 CRYSTALS

FILE REFERENCE: X-10242

CURRENT APPLICATION NUMBER: US/09/209,799D

CURRENT FILING DATE: 1998-12-11

NUMBER OF SEQ ID NOS: 29

SOFTWARE: Patentin version 3.0

SEQ ID NO 15

LENGTH: 30

TYPE: PRT

ORGANISM: Artificial

FEATURE:

OTHER INFORMATION: synthetic construct

US-09-209-799D-15

Query Match 33.8%; Score 157; DB 2; Length 30;

Best Local Similarity 100.0%; Pred. No. 5.1e-12;

Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 30 HGGFTSDVSSYLEGQAQKEFIAMLVKGR 59

DB 1 HGGFTSDVSSYLEGQAQKEFIAMLVKGR 59

DB 1 HGGFTSDVSSYLEGQAQKEFIAMLVKGR 30

RESULT 9

US-09-614-847-87

Sequence 87, Application US/09614847

Patent No. 6528486

GENERAL INFORMATION:

APPLICANT: Larsen, Bjarne Due

APPLICANT: Mikkelsen, Jens Mollgaard

APPLICANT: Neve, Soren

TITLE OF INVENTION: NOVEL PEPTIDE AGONISTS OF GLP-1 ACTIVITY

FILE REFERENCE: 55511(45487)

CURRENT APPLICATION NUMBER: US/09/614,847

CURRENT FILING DATE: 2000-07-12

PRIOR APPLICATION NUMBER: US 60/143,591

PRIOR FILING DATE: 1999-07-13

NUMBER OF SEQ ID NOS: 153

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 87

LENGTH: 30

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE:

OTHER INFORMATION: Description of Artificial Sequence:

OTHER INFORMATION: Gly8-GLP-1(7-36) (Human)-NH2

US-09-614-847-87

Query Match 33.8%; Score 157; DB 2; Length 30;

Best Local Similarity 100.0%; Pred. No. 5.1e-12;

Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 30 HGGFTSDVSSYLEGQAQKEFIAMLVKGR 59

DB 1 HGGFTSDVSSYLEGQAQKEFIAMLVKGR 30

RESULT 10

US-09-614-847-112

Sequence 112, Application US/09614847

Patent No. 6528486

GENERAL INFORMATION:

APPLICANT: Larsen, Bjarne Due

APPLICANT: Mikkelsen, Jens Mollgaard

APPLICANT: Neve, Soren

TITLE OF INVENTION: NOVEL PEPTIDE AGONISTS OF GLP-1 ACTIVITY

FILE REFERENCE: 55511(45487)

CURRENT APPLICATION NUMBER: US/09/614,847

CURRENT FILING DATE: 2000-07-12

PRIOR APPLICATION NUMBER: US 60/143,591

PRIOR FILING DATE: 1999-07-13

NUMBER OF SEQ ID NOS: 153

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 112

LENGTH: 30

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE:

OTHER INFORMATION: Description of Artificial Sequence:

OTHER INFORMATION: Gly8Iys34N-palmitoyl-GLP-1(7-36)

NAME/KEY: MOD_RES

LOCATION: (28)

OTHER INFORMATION: Lys(N-palmitoyl)

US-09-614-847-112

Query Match 33.8%; Score 157; DB 2; Length 30;

Best Local Similarity 100.0%; Pred. No. 5.1e-12;

Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 30 HGGFTSDVSSYLEGQAQKEFIAMLVKGR 59

DB 1 HGGFTSDVSSYLEGQAQKEFIAMLVKGR 30


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RESULT 11
US-09-614-847-113
; Sequence 113, Application US/09614847
; Patent No. 6528486
; GENERAL INFORMATION:
; APPLICANT: Larsen, Bjarne Due
; APPLICANT: Mikkelsen, Jens Mollgaard
; APPLICANT: Neve, Soren
; TITLE OF INVENTION: NOVEL PEPTIDE AGONISTS OF GLP-1 ACTIVITY
; FILE REFERENCE: 55511(45487)
; CURRENT APPLICATION NUMBER: US/09/614,847
; CURRENT FILING DATE: 2000-07-12
; PRIOR APPLICATION NUMBER: US 60/143,591
; PRIOR FILING DATE: 1999-07-13
; NUMBER OF SEQ ID NOS: 153
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 113
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: Gly8Lys26N-palmitoyl-GLP-1 (7-36)
; NAME/KEY: MOD RES
; LOCATION: (20)
; OTHER INFORMATION: Lys(N-palmitoyl)
US-09-614-847-113

Query Match          33.8%; Score 157; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 5,1e-12;
Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      30 HGEFTSDVSSYLEGQAAKEFIAVLVKGR 59
Db      1 HGEFTSDVSSYLEGQAAKEFIAVLVKGR 30

RESULT 12
US-09-997-792A-13
; Sequence 13, Application US/09997792A
; Patent No. 6555521
; GENERAL INFORMATION:
; APPLICANT: ELI LILLY and COMPANY
; TITLE OF INVENTION: Glucagon-Like Peptide-1 Crystals
; FILE REFERENCE: X-10242A
; CURRENT APPLICATION NUMBER: US/09/997,792A
; CURRENT FILING DATE: 2002-09-30
; PRIOR APPLICATION NUMBER: US 60/069,728
; PRIOR FILING DATE: 1997-12-16
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 13
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Construct
US-09-997-792A-13

Query Match          33.8%; Score 157; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 5,1e-12;
Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      30 HGEFTSDVSSYLEGQAAKEFIAVLVKGR 59
Db      1 HGEFTSDVSSYLEGQAAKEFIAVLVKGR 30

RESULT 13
US-09-209-799D-16
; Sequence 16, Application US/09209799D
; Patent No. 6380357
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; GENERAL INFORMATION:
; APPLICANT: Hermeling, Ronald
; APPLICANT: Hoffmann, James
; APPLICANT: Narasimhan, Chakravarthy
; TITLE OF INVENTION: GLUCAGON-LIKE PEPTIDE-1 CRYSTALS
; FILE REFERENCE: X-10242
; CURRENT APPLICATION NUMBER: US/09/209,799D
; CURRENT FILING DATE: 1998-12-11
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 16
; LENGTH: 31
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: synthetic construct
US-09-209-799D-16

Query Match          33.8%; Score 157; DB 2; Length 31;
Best Local Similarity 100.0%; Pred. No. 5,3e-12;
Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      30 HGEFTSDVSSYLEGQAAKEFIAVLVKGR 59
Db      1 HGEFTSDVSSYLEGQAAKEFIAVLVKGR 30

RESULT 14
US-09-614-847-111
; Sequence 111, Application US/09614847
; Patent No. 6528486
; GENERAL INFORMATION:
; APPLICANT: Larsen, Bjarne Due
; APPLICANT: Mikkelsen, Jens Mollgaard
; APPLICANT: Neve, Soren
; TITLE OF INVENTION: NOVEL PEPTIDE AGONISTS OF GLP-1 ACTIVITY
; FILE REFERENCE: 55511(45487)
; CURRENT APPLICATION NUMBER: US/09/614,847
; CURRENT FILING DATE: 2000-07-12
; PRIOR APPLICATION NUMBER: US 60/143,591
; PRIOR FILING DATE: 1999-07-13
; NUMBER OF SEQ ID NOS: 153
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 111
; LENGTH: 31
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: Gly8Lys37N-palmitoyl-GLP-1 (7-36)
; NAME/KEY: MOD RES
; LOCATION: (31)
; OTHER INFORMATION: Lys(N-palmitoyl)
US-09-614-847-111

Query Match          33.8%; Score 157; DB 2; Length 31;
Best Local Similarity 100.0%; Pred. No. 5,3e-12;
Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      30 HGEFTSDVSSYLEGQAAKEFIAVLVKGR 59
Db      1 HGEFTSDVSSYLEGQAAKEFIAVLVKGR 30

RESULT 15
US-09-614-847-123
; Sequence 123, Application US/09614847
; Patent No. 6528486
; GENERAL INFORMATION:
; APPLICANT: Larsen, Bjarne Due
; APPLICANT: Mikkelsen, Jens Mollgaard
; APPLICANT: Neve, Soren
; TITLE OF INVENTION: NOVEL PEPTIDE AGONISTS OF GLP-1 ACTIVITY
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FILE REFERENCE: 55511(45487)
 CURRENT APPLICATION NUMBER: US/09/614,847
 CURRENT FILING DATE: 2000-07-12
 PRIOR APPLICATION NUMBER: US 60/143,591
 PRIOR FILING DATE: 1999-07-13
 NUMBER OF SEQ ID NOS: 153
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO: 123
 LENGTH: 31
 TYPE: PRT
 ORGANISM: Artificial Sequence
 FEATURE:
 OTHER INFORMATION: Description of Artificial Sequence: Gly8-GLP-1(7-37)
 US-09-614-847-123

Query Match 33.8%; Score 157; DB 2; Length 31;
 Best Local Similarity 100.0%; Pred. No. 5.3e-12;
 Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 30 HGEFTSDVSSYLEGQAAKEFIAMLVKGR 59
 |||||
 Db 1 HGEFTSDVSSYLEGQAAKEFIAMLVKGR 30

Search completed: April 19, 2006, 12:11:37
 Job time : 6.62571 secs

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioacceleration Ltd.

OM protein - protein search, using SW model

Run on: April 19, 2006, 12:29:13 ; Search time 18.7734 Seconds
(without alignments)
1980.821 Million cell updates/sec

Title: US-10-775-180-449

Perfect score: 465
1 MNIFYFLPLSFVQGLHRT.....SYLEGQAKFIAMLVKGR 89

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA Main:
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
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6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	465	100.0	89	US-10-775-180-449	Sequence 449, App
2	465	100.0	89	US-10-775-204-1282	Sequence 1282, App
3	465	100.0	673	US-10-775-180-834	Sequence 834, App
4	465	100.0	673	US-10-775-204-2170	Sequence 2170, App
5	465	100.0	674	US-10-775-180-447	Sequence 447, App
6	465	100.0	674	US-10-775-204-1280	Sequence 1280, App
7	341.5	73.4	669	US-10-775-180-419	Sequence 419, App
8	341.5	73.4	669	US-10-775-204-1231	Sequence 1231, App
9	341	73.3	145	US-10-775-180-685	Sequence 685, App
10	341	73.3	145	US-10-775-204-1790	Sequence 1790, App
11	341	73.3	730	US-10-775-180-610	Sequence 610, App
12	341	73.3	730	US-10-775-204-1622	Sequence 1622, App
13	335.5	72.2	669	US-10-775-180-425	Sequence 425, App
14	335.5	72.2	669	US-10-775-204-1237	Sequence 1237, App
15	335	72.0	145	US-10-775-180-687	Sequence 687, App
16	335	72.0	145	US-10-775-204-1792	Sequence 1792, App
17	335	72.0	730	US-10-775-180-612	Sequence 612, App
18	335	72.0	730	US-10-775-204-1624	Sequence 1624, App
19	329.5	70.9	669	US-10-775-180-420	Sequence 420, App
20	329.5	70.9	669	US-10-775-180-421	Sequence 421, App
21	329.5	70.9	669	US-10-775-180-423	Sequence 423, App
22	329.5	70.9	669	US-10-775-180-424	Sequence 424, App
23	329.5	70.9	669	US-10-775-204-1232	Sequence 1232, App
24	329.5	70.9	669	US-10-775-204-1233	Sequence 1233, App
25	329.5	70.9	669	US-10-775-204-1235	Sequence 1235, App
26	329.5	70.9	669	US-10-775-204-1236	Sequence 1236, App
27	324	69.7	83	US-10-775-180-684	Sequence 684, App

28	324	69.7	83	5	US-10-775-204-1789	Sequence 1789, App
29	324	69.7	668	5	US-10-775-180-609	Sequence 609, App
30	324	69.7	668	5	US-10-775-204-1621	Sequence 1621, App
31	319	68.6	77	5	US-10-775-180-686	Sequence 686, App
32	319	68.6	77	5	US-10-775-204-1791	Sequence 1791, App
33	319	68.6	662	5	US-10-775-180-611	Sequence 611, App
34	319	68.6	662	5	US-10-775-204-1623	Sequence 1623, App
35	318	68.4	83	5	US-10-775-180-688	Sequence 688, App
36	318	68.4	83	5	US-10-775-204-1793	Sequence 1793, App
37	318	68.4	668	5	US-10-775-180-613	Sequence 613, App
38	318	68.4	668	5	US-10-775-204-1625	Sequence 1625, App
39	317.5	68.3	664	5	US-10-775-180-598	Sequence 598, App
40	317.5	68.3	664	5	US-10-775-204-1607	Sequence 1607, App
41	315.5	67.8	663	5	US-10-775-180-600	Sequence 600, App
42	315.5	67.8	663	5	US-10-775-204-1609	Sequence 1609, App
43	314	67.5	60	5	US-10-775-180-835	Sequence 835, App
44	314	67.5	60	5	US-10-775-204-2180	Sequence 2180, App
45	313	67.3	77	5	US-10-775-180-689	Sequence 689, App

ALIGNMENTS

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RESULT 1
US-10-775-180-449
; Sequence 449, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: P574
; CURRENT APPLICATION NUMBER: US/10/775,180
; PRIOR FILING DATE: 2004-02-11
; PRIOR FILING DATE: 2002-12-23
; PRIOR FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2002-02-28
; PRIOR FILING DATE: 2002-05-10
; PRIOR FILING DATE: 2002-05-10
; PRIOR FILING DATE: 2002-07-24
; PRIOR FILING DATE: 2002-07-24
; PRIOR FILING DATE: 2002-09-18
; PRIOR FILING DATE: 2002-09-18
; PRIOR FILING DATE: 2002-10-02
; PRIOR FILING DATE: 2002-10-02
; PRIOR FILING DATE: 2002-10-11
; PRIOR FILING DATE: 2002-10-11
; PRIOR FILING DATE: 2002-10-23
; PRIOR FILING DATE: 2002-10-23
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 449
; LENGTH: 89
; TYPE: PRT
; ORGANISM: Homo sapiens
;
Query Match 100.0%; Score 465; DB 5; Length 89;
Best Local Similarity 100.0%; Pred. No. 2.8e-44;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
1 MNIFYFLPLSFVQGLHRTSGRSGEGFTSDVSSYLEGQAKFIAMLVKGRH 60
1 MNIFYFLPLSFVQGLHRTSGRSGEGFTSDVSSYLEGQAKFIAMLVKGRH 60
61 GEGFTSDVSSYLEGQAKFIAMLVKGR 89
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Db 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGR 89

RESULT 2

US-10-775-204-1282

Sequence 1282, Application US/10775204

Publication No. US20050186664A1

GENERAL INFORMATION:

APPLICANT: Rosen, Craig A.

APPLICANT: Haseltine, William A.

APPLICANT: Balance, David J.

APPLICANT: Turner, Andrew J.

TITLE OF INVENTION: Albumin Fusion Proteins

FILE REFERENCE: PF564

CURRENT APPLICATION NUMBER: US/10/775,204

PRIOR FILING DATE: 2004-02-11

PRIOR FILING DATE: 2001-12-21

PRIOR APPLICATION NUMBER: 60/341,811

PRIOR FILING DATE: 2002-02-28

PRIOR APPLICATION NUMBER: 60/360,000

PRIOR FILING DATE: 2002-02-28

PRIOR APPLICATION NUMBER: 60/378,950

PRIOR FILING DATE: 2002-05-10

PRIOR APPLICATION NUMBER: 60/398,008

PRIOR FILING DATE: 2002-07-24

PRIOR APPLICATION NUMBER: 60/411,355

PRIOR FILING DATE: 2002-09-18

PRIOR APPLICATION NUMBER: 60/414,984

PRIOR FILING DATE: 2002-10-02

PRIOR APPLICATION NUMBER: 60/417,611

PRIOR FILING DATE: 2002-10-11

PRIOR APPLICATION NUMBER: 60/420,246

PRIOR FILING DATE: 2002-10-23

PRIOR APPLICATION NUMBER: 60/423,623

PRIOR FILING DATE: 2002-11-05

PRIOR APPLICATION NUMBER: 60/351,360

PRIOR FILING DATE: 2002-01-28

Remaining Prior Application data removed - See File Wrapper or PALM.

NUMBER OF SEQ ID NOS: 2222

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 1282

LENGTH: 89

TYPE: PRT

ORGANISM: Homo sapiens

US-10-775-204-1282

Query Match 100.0%; Score 465; DB 5; Length 89;

Best Local Similarity 100.0%; Pred. No. 2.8e-44; Indels 0; Gaps 0;

Matches 89; Conservative 0; Mismatches 0;

QY 1 MNIFYFLFLSVQGLHETRRGSLDKRGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60

Db 1 MNIFYFLFLSVQGLHETRRGSLDKRGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60

QY 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGR 89

Db 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGR 89

RESULT 3

US-10-775-180-834

Sequence 834, Application US/10775180

Publication No. US20050054570A1

GENERAL INFORMATION:

APPLICANT: Rosen, Craig A.

APPLICANT: Haseltine, William A.

TITLE OF INVENTION: Albumin Fusion Proteins

FILE REFERENCE: PF574

CURRENT APPLICATION NUMBER: US/10/775,180

PRIOR FILING DATE: 2004-02-11

PRIOR APPLICATION NUMBER: 60/423,623

PRIOR FILING DATE: 2002-12-23

PRIOR APPLICATION NUMBER: 60/341,811

PRIOR FILING DATE: 2001-12-21

PRIOR APPLICATION NUMBER: 60/360,000

PRIOR FILING DATE: 2002-02-28

PRIOR APPLICATION NUMBER: 60/378,950

PRIOR FILING DATE: 2002-05-10

PRIOR APPLICATION NUMBER: 60/398,008

PRIOR FILING DATE: 2002-07-24

PRIOR APPLICATION NUMBER: 60/411,355

PRIOR FILING DATE: 2002-09-18

PRIOR APPLICATION NUMBER: 60/414,984

PRIOR FILING DATE: 2002-10-02

PRIOR APPLICATION NUMBER: 60/417,611

PRIOR FILING DATE: 2002-10-11

PRIOR APPLICATION NUMBER: 60/420,246

PRIOR FILING DATE: 2002-10-23

PRIOR APPLICATION NUMBER: 60/423,623

PRIOR FILING DATE: 2002-11-05

Remaining Prior Application data removed - See File Wrapper or PALM.

NUMBER OF SEQ ID NOS: 858

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 834

LENGTH: 673

TYPE: PRT

ORGANISM: Homo sapiens

US-10-775-180-834

Query Match 100.0%; Score 465; DB 5; Length 673;

Best Local Similarity 100.0%; Pred. No. 2.9e-43; Indels 0; Gaps 0;

Matches 89; Conservative 0; Mismatches 0;

QY 1 MNIFYFLFLSVQGLHETRRGSLDKRGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60

Db 1 MNIFYFLFLSVQGLHETRRGSLDKRGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60

QY 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGR 89

Db 61 GEGFTSDVSSYLEGQAAKEFIAMLVKGR 89

RESULT 4

US-10-775-204-2170

Sequence 2170, Application US/10775204

Publication No. US20050186664A1

GENERAL INFORMATION:

APPLICANT: Rosen, Craig A.

APPLICANT: Haseltine, William A.

APPLICANT: Balance, David J.

APPLICANT: Turner, Andrew J.

TITLE OF INVENTION: Albumin Fusion Proteins

FILE REFERENCE: PF564

CURRENT APPLICATION NUMBER: US/10/775,204

PRIOR FILING DATE: 2004-02-11

PRIOR APPLICATION NUMBER: 60/341,811

PRIOR FILING DATE: 2001-12-21

PRIOR APPLICATION NUMBER: 60/360,000

PRIOR FILING DATE: 2002-02-28

PRIOR APPLICATION NUMBER: 60/378,950

PRIOR FILING DATE: 2002-05-10

PRIOR APPLICATION NUMBER: 60/398,008

PRIOR FILING DATE: 2002-07-24

PRIOR APPLICATION NUMBER: 60/411,355

PRIOR FILING DATE: 2002-09-18

PRIOR APPLICATION NUMBER: 60/414,984

PRIOR FILING DATE: 2002-10-02

PRIOR APPLICATION NUMBER: 60/417,611

PRIOR FILING DATE: 2002-10-11

PRIOR APPLICATION NUMBER: 60/420,246

PRIOR FILING DATE: 2002-10-23

PRIOR APPLICATION NUMBER: 60/423,623

PRIOR FILING DATE: 2002-11-05

PRIOR APPLICATION NUMBER: 60/351,360

PRIOR FILING DATE: 2002-01-28

Remaining Prior Application data removed - See File Wrapper or PALM.

NUMBER OF SEQ ID NOS: 2222

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; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2170
; LENGTH: 673
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-204-2170

Query Match      100.0%; Score 465; DB 5; Length 673;
Best Local Similarity 100.0%; Pred. No. 2.9e-43;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNIFYIFLFLSFVQGLEHTRRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRH 60
DB 1 MNIFYIFLFLSFVQGLEHTRRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRH 60

QY 61 GEGFTSDVSSYLEGQAKEFIAMLVKGR 89
DB 61 GEGFTSDVSSYLEGQAKEFIAMLVKGR 89

RESULT 5
US-10-775-180-447
; Sequence 447, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PP574
; CURRENT APPLICATION NUMBER: US/10/775,180
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 447
; LENGTH: 674
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-447

Query Match      100.0%; Score 465; DB 5; Length 674;
Best Local Similarity 100.0%; Pred. No. 2.9e-43;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNIFYIFLFLSFVQGLEHTRRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRH 60
DB 1 MNIFYIFLFLSFVQGLEHTRRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRH 60

QY 61 GEGFTSDVSSYLEGQAKEFIAMLVKGR 89
DB 61 GEGFTSDVSSYLEGQAKEFIAMLVKGR 89
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RESULT 6
US-10-775-204-1280
; Sequence 1280, Application US/10775204
; Publication No. US20050186664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PP564
; CURRENT APPLICATION NUMBER: US/10/775,204
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1280
; LENGTH: 674
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-204-1280

Query Match      100.0%; Score 465; DB 5; Length 674;
Best Local Similarity 100.0%; Pred. No. 2.9e-43;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 MNIFYIFLFLSFVQGLEHTRRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRH 60

QY 61 GEGFTSDVSSYLEGQAKEFIAMLVKGR 89
DB 61 GEGFTSDVSSYLEGQAKEFIAMLVKGR 89

RESULT 7
US-10-775-180-419
; Sequence 419, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PP574
; CURRENT APPLICATION NUMBER: US/10/775,180
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-204-1231
Query Match      73.4%; Score 341.5; DB 5; Length 669;
Best Local Similarity 79.3%; Pred. No. 1,9e-29;
Matches 69; Conservative 4; Mismatches 5; Indels 9; Gaps 1;

QY      3 IFYIFLPLFVQGLSEHTHRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRHGE 62
      7 ISLFLFSSAYSR-----SLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRHGE 57
      58 GTFTSDVSSYLEGQAKEFIAMLVKGR 84

Db      63 GTFTSDVSSYLEGQAKEFIAMLVKGR 89
      58 GTFTSDVSSYLEGQAKEFIAMLVKGR 84

RESULT 8
US-10-775-204-1231
; Sequence 1231, Application US/10775204
; Publication No. US20050186664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF564
; CURRENT APPLICATION NUMBER: US/10/775,204
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 60/351,360
; PRIOR FILING DATE: 2002-01-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2222
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1231
; LENGTH: 669
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-204-1231
Query Match      73.4%; Score 341.5; DB 5; Length 669;
Best Local Similarity 79.3%; Pred. No. 1,9e-29;
Matches 69; Conservative 4; Mismatches 5; Indels 9; Gaps 1;

QY      3 IFYIFLPLFVQGLSEHTHRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRHGE 62
      7 ISLFLFSSAYSR-----SLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRHGE 57
      58 GTFTSDVSSYLEGQAKEFIAMLVKGR 84

Db      63 GTFTSDVSSYLEGQAKEFIAMLVKGR 89
      58 GTFTSDVSSYLEGQAKEFIAMLVKGR 84

RESULT 9
US-10-775-180-685
; Sequence 685, Application US/10775180
; Publication No. US20050054570A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF574
; CURRENT APPLICATION NUMBER: US/10/775,180
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: PCT/US02/40892
; PRIOR FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/420,246
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: 60/423,623
; PRIOR FILING DATE: 2002-11-05
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 858
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 685
; LENGTH: 145
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-775-180-685
Query Match      73.3%; Score 341; DB 5; Length 145;
Best Local Similarity 81.7%; Pred. No. 3,7e-30;
Matches 67; Conservative 4; Mismatches 11; Indels 0; Gaps 0;

QY      8 LFLSLFVQGLSEHTHRGSLDKRHGEGFTSDVSSYLEGQAKEFIAMLVKGRHGEFTFS 67
      64 LFINITIASIAAKEBGSVLDKRGEGFTSDVSSYLEGQAKEFIAMLVKGRHGEFTFS 123
      68 DVSSYLEGQAKEFIAMLVKGR 89
      124 DVSSYLEGQAKEFIAMLVKGR 145

Db      68 DVSSYLEGQAKEFIAMLVKGR 89
      124 DVSSYLEGQAKEFIAMLVKGR 145

RESULT 10
US-10-775-204-1790
; Sequence 1790, Application US/10775204
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OM protein - protein search, using sw model

Run on: April 19, 2006, 12:31:03 ; Search time 2.97088 Seconds

(without alignments)
1318.215 Million cell updates/sec

Title: US-10-775-180-449

Perfect score: 1 MNIFYIFLFLSFVQGLEHT.....SSYLEGQAKKEFIAMLVKGR 89

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 225428 seqs, 44002918 residues

Total number of hits satisfying chosen parameters: 225428

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Published Applications AA New:
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2: /SIDS5/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
3: /SIDS5/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
4: /SIDS5/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
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8: /SIDS5/ptodata/1/pubpaa/US66_NEW_PUB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	DB ID	Description
1	465	100.0	674	US-11-175-690-206 Sequence 206, App
2	465	100.0	915	US-11-175-690-208 Sequence 208, App
3	317	68.2	647	US-11-175-690-212 Sequence 212, App
4	313.5	67.4	657	US-11-175-690-216 Sequence 216, App
5	313.5	67.4	657	US-11-175-690-303 Sequence 303, App
6	313	67.3	649	US-11-175-690-213 Sequence 213, App
7	312.5	67.2	652	US-11-175-690-218 Sequence 218, App
8	310.5	66.8	650	US-11-175-690-209 Sequence 209, App
9	309.5	66.6	646	US-11-175-690-223 Sequence 223, App
10	309.5	66.6	659	US-11-175-690-221 Sequence 221, App
11	309	66.5	651	US-11-175-690-224 Sequence 224, App
12	308	66.2	648	US-11-175-690-214 Sequence 214, App
13	308	66.2	653	US-11-175-690-215 Sequence 215, App
14	308	66.2	654	US-11-175-690-219 Sequence 219, App
15	308	66.2	655	US-11-175-690-220 Sequence 220, App
16	308	66.2	656	US-11-175-690-225 Sequence 225, App
17	308	66.2	658	US-11-175-690-210 Sequence 210, App
18	302.5	65.1	122	US-10-997-061-31 Sequence 31, App1
19	302.5	65.1	123	US-10-997-074-31 Sequence 31, App1
20	295	63.4	118	US-10-997-074-52 Sequence 52, App1
21	294.5	63.3	70	US-10-997-061-28 Sequence 28, App1
22	293	63.0	117	US-10-997-061-9 Sequence 9, App1
23	293	63.0	117	US-10-997-074-28 Sequence 28, App1
24	291	62.6	277	US-10-997-061-11 Sequence 11, App1
25	290.5	62.5	287	US-10-997-074-55 Sequence 55, App1

26	288	61.9	119	6	US-10-997-061-13	Sequence 13, App1
27	243.5	52.4	180	7	US-11-145-463-1	Sequence 1, App11
28	164	35.3	6	6	US-10-517-563-8	Sequence 8, App11
29	164	35.3	42	6	US-10-517-563-7	Sequence 7, App11
30	161	34.6	36	7	US-11-293-676-8	Sequence 8, App11
31	161	34.6	39	7	US-11-293-676-9	Sequence 9, App11
32	157	33.8	30	7	US-11-175-690-293	Sequence 293, App
33	157	33.8	30	7	US-11-175-690-295	Sequence 295, App
34	157	33.8	30	7	US-11-175-690-296	Sequence 296, App
35	157	33.8	30	7	US-11-175-690-297	Sequence 297, App
36	157	33.8	30	7	US-11-175-690-299	Sequence 299, App
37	157	33.8	30	7	US-11-175-690-300	Sequence 300, App
38	157	33.8	30	7	US-11-175-690-301	Sequence 301, App
39	157	33.8	30	7	US-11-175-690-302	Sequence 302, App
40	157	33.8	30	7	US-11-175-690-305	Sequence 305, App
41	157	33.8	30	7	US-11-175-690-306	Sequence 306, App
42	157	33.8	30	7	US-11-175-690-307	Sequence 307, App
43	157	33.8	30	7	US-11-175-690-308	Sequence 308, App
44	157	33.8	30	7	US-11-175-690-310	Sequence 310, App
45	157	33.8	30	7	US-11-175-690-311	Sequence 311, App

ALIGNMENTS

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RESULT 1
US-11-175-690-206
; Sequence 206, Application US/1175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselaine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PE605
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: US/11/175, 690
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 206
; LENGTH: 674
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-11-175-690-206

Query Match      100.0%; Score 465; DB 7; Length 674;
Best Local Similarity 100.0%; Pred. No. 7.5e-45;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNIFYIFLFLSFVQGLEHTRRGSLDKRGEGTFTSDVSSYLEGQAKKEFIAMLVKGR 60
Db 1 MNIFYIFLFLSFVQGLEHTRRGSLDKRGEGTFTSDVSSYLEGQAKKEFIAMLVKGRH 60
QY 61 GEGFTSDVSSYLEGQAKKEFIAMLVKGR 89
Db 61 GEGFTSDVSSYLEGQAKKEFIAMLVKGR 89

RESULT 2
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```
US-11-175-690-208
; Sequence 208, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 208
; LENGTH: 915
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-208

Query Match      100.0%; Score 465; DB 7; Length 915;
Best Local Similarity 100.0%; Pred. No. 1,1e-44;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 MNIFYFLFLSLFVQGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAQKEFIAMLVKGRH 60
      |||
      1 MNIFYFLFLSLFVQGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAQKEFIAMLVKGRH 60
Db      1 MNIFYFLFLSLFVQGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAQKEFIAMLVKGRH 60

QY      61 GEGFTSDVSSYLEGQAQKEFIAMLVKGR 89
      |||
      61 GEGFTSDVSSYLEGQAQKEFIAMLVKGR 89
Db      61 GEGFTSDVSSYLEGQAQKEFIAMLVKGR 89

RESULT 3
US-11-175-690-212
; Sequence 212, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
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; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 212
; LENGTH: 647
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-212

Query Match      68.2%; Score 317; DB 7; Length 647;
Best Local Similarity 75.9%; Pred. No. 4.4e-28;
Matches 63; Conservative 4; Mismatches 16; Indels 0; Gaps 0;

QY      1 MNIFYFLFLSLFVQGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAQKEFIAMLVKGRH 60
      |||
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Db      1 MNIFYFLFLSLFVQGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAQKEFIAMLVKGRH 60

QY      61 GEGFTSDVSSYLEGQAQKEFIA 83
      |||
      61 GEGFTSDVSSYLEGQAQKEFIA 83
Db      61 AH---KSEVAHRRFKDDAHKSEVA 80

RESULT 4
US-11-175-690-216
; Sequence 216, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 216
; LENGTH: 657
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-216

Query Match      67.4%; Score 313.5; DB 7; Length 657;
Best Local Similarity 77.1%; Pred. No. 1,1e-27;
Matches 64; Conservative 4; Mismatches 12; Indels 3; Gaps 1;

QY      1 MNIFYFLFLSLFVQGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAQKEFIAMLVKGRH 60
      |||
      1 MNIFYFLFLSLFVQGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAQKEFIAMLVKGRH 60
Db      1 MNIFYFLFLSLFVQGLSEHTHRRGSLDKRHGEGFTSDVSSYLEGQAQKEFIAMLVKGRH 60

QY      61 GEGFTSDVSSYLEGQAQKEFIA 83
      |||
      61 AH---KSEVAHRRFKDDAHKSEVA 80
Db      61 AH---KSEVAHRRFKDDAHKSEVA 80

RESULT 5
US-11-175-690-303
; Sequence 303, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
```

```

? TITLE OF INVENTION: Albumin Fusion Proteins
? FILE REFERENCE: P6605
? CURRENT APPLICATION NUMBER: US/11/175,690
? CURRENT FILING DATE: 2005-07-07
? PRIOR APPLICATION NUMBER: PCT/US04/001369
? PRIOR FILING DATE: 2004-01-20
? PRIOR APPLICATION NUMBER: US 60/441,305
? PRIOR FILING DATE: 2003-01-22
? PRIOR APPLICATION NUMBER: US 60/453,201
? PRIOR FILING DATE: 2003-03-11
? PRIOR APPLICATION NUMBER: US 60/467,222
? PRIOR FILING DATE: 2003-05-02
? PRIOR APPLICATION NUMBER: US 60/472,816
? PRIOR FILING DATE: 2003-05-23
? PRIOR APPLICATION NUMBER: US 60/476,267
? PRIOR FILING DATE: 2003-06-06
? PRIOR APPLICATION NUMBER: US 60/505,172
? PRIOR FILING DATE: 2003-09-24
? PRIOR APPLICATION NUMBER: US 60/506,746
? PRIOR FILING DATE: 2003-09-30
? NUMBER OF SEQ ID NOS: 568
? SOFTWARE: PatentIn Ver. 2.0
? SEQ ID NO 303
? LENGTH: 657
? TYPE: PRT
? ORGANISM: Homo sapiens
? US-11-175-690-303

```

```

US-11-175-690-213
Query Match      67.3%; Score 313; DB 7; Length 649;
Best Local Similarity 75.3%; Pred. No. 1.3e-27;
Matches 64; Conservative 4; Mismatches 15; Indels 2; Gaps 1;

QY 1 MNIFIFIFLLSFQGLEHTHRGSLDXRHEGFTSVSSYLEGQAKEFIAMLVYKGR 59
    |||||
DB 1 MNIFIFIFLLSFQGLEHTHRGSLDXRHEGFTSVSSYLEGQAKEFIAMLVYKGRD 60
    |||||

QY 60 -HGEFTSDVSSYLEGQAKEPIA 83
    |||||
DB 61 AHKSDAHKSEVAARPKDLGEENFYKA 85
    |||||

```

```

RESULT 6
US-11-175-690-213
; Sequence 213, Application US/11/175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PFE05
; CURRENT APPLICATION NUMBER: US/11/175,690
; PRIOR FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatencIn Ver. 2.0
; SEQ ID NO 213
; LENGTH: 649
; TYPE: prt
; ORGANISM: Homo sapiens

```

```

; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 209
; LENGTH: 650
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-209
```

```

Query Match      66.8%; Score 310.5; DB 7; Length 650;
Best Local Similarity 74.4%; Pred. No. 2.4e-27;
Matches 64; Conservative 4; Mismatches 15; Indels 3; Gaps 1;
```

```

QY      1 MNIFYFLFLSLFVQGLEHTHRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGR 59
      |||
      1 MNIFYFLFLSLFVQGLEHTHRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGRD 60
DB
QY      60 --HGEGTFTSDVSSYLEGQAKEFIA 83
      |||
      61 AHKSEDAHKSEVAHRPKDGLGEENFKA 86
DB
```

```

RESULT 9
US-11-175-690-223
; Sequence 223, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselcline et al.
; FILE REFERENCE: PF605
; TITLE OF INVENTION: Albumin Fusion Proteins
; CURRENT APPLICATION NUMBER: US/11/175,690
; PRIOR FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 223
; LENGTH: 646
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-223
```

```

Query Match      66.8%; Score 309.5; DB 7; Length 646;
Best Local Similarity 75.9%; Pred. No. 3.1e-27;
Matches 63; Conservative 5; Mismatches 14; Indels 1; Gaps 1;
```

```

QY      1 MNIFYFLFLSLFVQGLEHTHRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGRH 60
      |||
      1 MNIFYFLFLSLFVQGLEHTHRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGRD 60
DB
QY      61 GEGTFTSDVSSYLEGQAKEFIA 83
      |||
      61 AD-AHKSEVAHRPKDGLGEENFKA 82
DB
```

```

RESULT 10
US-11-175-690-221
; Sequence 221, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselcline et al.
; FILE REFERENCE: PF605
; TITLE OF INVENTION: Albumin Fusion Proteins
; CURRENT APPLICATION NUMBER: US/11/175,690
; PRIOR FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 221
; LENGTH: 659
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-221
```

```

Query Match      66.5%; Score 309.5; DB 7; Length 659;
Best Local Similarity 76.5%; Pred. No. 3.2e-27;
Matches 65; Conservative 4; Mismatches 11; Indels 5; Gaps 2;
```

```

QY      1 MNIFYFLFLSLFVQGLEHTHRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGRH 60
      |||
      1 MNIFYFLFLSLFVQGLEHTHRGSLDKRHGEGTFTSDVSSYLEGQAKEFIAMLVKGRD 60
DB
QY      61 GEGTFTSDVSSYLEGQAKEFIA 83
      |||
      61 AH--KSEVAHRPKDGLDAHKSEVA 82
DB
```

```

RESULT 11
US-11-175-690-224
; Sequence 224, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haselcline et al.
; FILE REFERENCE: PF605
; TITLE OF INVENTION: Albumin Fusion Proteins
; CURRENT APPLICATION NUMBER: US/11/175,690
; PRIOR FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
```


PRIOR APPLICATION NUMBER: US 60/467,222
PRIOR FILING DATE: 2003-05-02
PRIOR APPLICATION NUMBER: US 60/472,816
PRIOR FILING DATE: 2003-05-23
PRIOR APPLICATION NUMBER: US 60/476,267
PRIOR FILING DATE: 2003-06-06
PRIOR APPLICATION NUMBER: US 60/505,172
PRIOR FILING DATE: 2003-09-24
PRIOR APPLICATION NUMBER: US 60/506,746
PRIOR FILING DATE: 2003-09-30
NUMBER OF SEQ ID NOS: 568
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 224
LENGTH: 651
TYPE: PRT
ORGANISM: Homo sapiens
US-11-175-690-224

Query Match 66.5%; Score 309; DB 7; Length 651;
Best Local Similarity 77.8%; Pred. No. 3.6e-27;
Matches 63; Conservative 5; Mismatches 9; Indels 4; Gaps 2;

QY 1 MNIFYIFLFLSFVQGLEHTRRGS�DKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRH 60
|||||
DB 1 MNIFYIFLFLSFVQGLEHTRRGS�DKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGRD 60
|||||

QY 61 GEGFTSDVSSYLEGQAAKEF 81
|||
DB 61 AH--KSEVDAAH-KSEVHRRF 77
|||

RESULT 12
US-11-175-690-214
Sequence 214, Application US/11175690
Publication No. US20060014254A1
GENERAL INFORMATION:
APPLICANT: Haseltine et al.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PE605
CURRENT APPLICATION NUMBER: US/11/175,690
CURRENT FILING DATE: 2005-07-07
PRIOR APPLICATION NUMBER: PCT/US04/001369
PRIOR FILING DATE: 2004-01-20
PRIOR APPLICATION NUMBER: US 60/441,305
PRIOR FILING DATE: 2003-01-22
PRIOR APPLICATION NUMBER: US 60/453,201
PRIOR FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US 60/467,222
PRIOR FILING DATE: 2003-05-02
PRIOR APPLICATION NUMBER: US 60/472,816
PRIOR FILING DATE: 2003-05-23
PRIOR APPLICATION NUMBER: US 60/476,267
PRIOR FILING DATE: 2003-06-06
PRIOR APPLICATION NUMBER: US 60/505,172
PRIOR FILING DATE: 2003-09-24
PRIOR APPLICATION NUMBER: US 60/506,746
PRIOR FILING DATE: 2003-09-30
NUMBER OF SEQ ID NOS: 568
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 214
LENGTH: 648
TYPE: PRT
ORGANISM: Homo sapiens
US-11-175-690-214

Query Match 66.2%; Score 308; DB 7; Length 648;
Best Local Similarity 100.0%; Pred. No. 4.6e-27;
Matches 59; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNIFYIFLFLSFVQGLEHTRRGS�DKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGR 59
|||||
DB 1 MNIFYIFLFLSFVQGLEHTRRGS�DKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGR 59
|||||

RESULT 13
US-11-175-690-215
Sequence 215, Application US/11175690
Publication No. US20060014254A1
GENERAL INFORMATION:
APPLICANT: Haseltine et al.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PE605
CURRENT APPLICATION NUMBER: US/11/175,690
CURRENT FILING DATE: 2005-07-07
PRIOR APPLICATION NUMBER: PCT/US04/001369
PRIOR FILING DATE: 2004-01-20
PRIOR APPLICATION NUMBER: US 60/441,305
PRIOR FILING DATE: 2003-01-22
PRIOR APPLICATION NUMBER: US 60/453,201
PRIOR FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US 60/467,222
PRIOR FILING DATE: 2003-05-02
PRIOR APPLICATION NUMBER: US 60/472,816
PRIOR FILING DATE: 2003-05-23
PRIOR APPLICATION NUMBER: US 60/476,267
PRIOR FILING DATE: 2003-06-06
PRIOR APPLICATION NUMBER: US 60/505,172
PRIOR FILING DATE: 2003-09-24
PRIOR APPLICATION NUMBER: US 60/506,746
PRIOR FILING DATE: 2003-09-30
NUMBER OF SEQ ID NOS: 568
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 215
LENGTH: 653
TYPE: PRT
ORGANISM: Homo sapiens
US-11-175-690-215

Query Match 66.2%; Score 308; DB 7; Length 653;
Best Local Similarity 100.0%; Pred. No. 4.7e-27;
Matches 59; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNIFYIFLFLSFVQGLEHTRRGS�DKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGR 59
|||||
DB 1 MNIFYIFLFLSFVQGLEHTRRGS�DKRHGEGFTSDVSSYLEGQAAKEFIAMLVKGR 59
|||||

RESULT 14
US-11-175-690-219
Sequence 219, Application US/11175690
Publication No. US20060014254A1
GENERAL INFORMATION:
APPLICANT: Haseltine et al.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PE605
CURRENT APPLICATION NUMBER: US/11/175,690
CURRENT FILING DATE: 2005-07-07
PRIOR APPLICATION NUMBER: PCT/US04/001369
PRIOR FILING DATE: 2004-01-20
PRIOR APPLICATION NUMBER: US 60/441,305
PRIOR FILING DATE: 2003-01-22
PRIOR APPLICATION NUMBER: US 60/453,201
PRIOR FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US 60/467,222
PRIOR FILING DATE: 2003-05-02
PRIOR APPLICATION NUMBER: US 60/472,816
PRIOR FILING DATE: 2003-05-23
PRIOR APPLICATION NUMBER: US 60/476,267
PRIOR FILING DATE: 2003-06-06
PRIOR APPLICATION NUMBER: US 60/505,172
PRIOR FILING DATE: 2003-09-24
PRIOR APPLICATION NUMBER: US 60/506,746
PRIOR FILING DATE: 2003-09-30
NUMBER OF SEQ ID NOS: 568
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 219

